

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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LONDON, SATURDAY, DECEMBER 9, 1876.

[WITH SUPPLEMENT.] {PRICE SIXPENCE PER ANNUM, BY POST, £1 4s.}

MR. JAMES H. CROFTS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of Mining Stocks and Shares (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Miscellaneous, Insurance, Assurance, Telegraph, Shipping, Canal, Gas, Water, and Dock Shares.
BUSINESS negotiated in Stocks and Shares not having a general market value.
BUSINESS in COLLIERY and IRON Shares, and in the principal WAGON and MANUFACTURING COMPANIES of the NORTH of ENGLAND and SCOTLAND.
BUSINESS in all the principal COTTON SPINNING Shares.
Mr. J. H. CROFTS, having now established CORRESPONDING AGENCIES in all the Chief Towns of the United Kingdom, is prepared to deal in the various LOCAL Stocks and Shares at close market prices.
Accounts opened for the Fortnightly Settlement.
Monthly and Daily Price Lists issued.
Bankers: City Bank, London; South Cornwall Bank, St. Austell.

SPECIAL DEALINGS in the following, or part:—
10 Alltani, £5.
25 Aberdun, 13s.
50 Asheton, £1 1/4.
20 Bampfyde, 13s.
10 Belstone.
10 Bilson, £1 3/4.
20 Colorado, 20s.
20 Cathedral, 25s.
1 Carn Brea, £41.
15 Cedar Creek, £2 3/4.
10 Chapel House, £2 3/4.
10 Cardiff & Swansea, 35s.
5 Chontales, 8s.
5 Dolcoath, £40.
10 Derwent (offer wtd.), £4 1/4.
20 Devon Consols, £4 1/4.
20 Don Pedro, 6s.
10 East Van, £1 3/4.
15 E. Chiverton, 35s.
20 East Caradon, 23s. 9d.
15 Exchequer, £2.
2 Eberhardt, £8 1/2.
2 East Pool, £12 1/2.
15 Flagstaff, 19s. 6d.
40 Frontino, £1 1/2.
10 Glyn, £2 1/2.
10 Great Laxey, £20 1/2.
20 Gt. West Van, 9s.
20 I. X. L., 20s. 3d.
50 Javali, 13s.
20 Lawes Chemical (offer wanted).
50 Llanrwst, £2 11s. 3d.
20 Marke Valley, 30s. 6d.
10 New Cook's Kitchen, 20s.
30 North Laxey, 13s. 9d.
25 New Shariston, Pref., £1 1/4.
15 Newport Aber., 6s.
50 Pestercra, 4s. 6d.
50 Parys Mount, 12s. 6d.
50 Penstruthal, 10s.
10 Penant.
20 Pennerley, £1 5s.
10 Richmond, £9 1/2.
50 Prince of Wales, 5s.
10 Roman Grav., £13 1/2.
50 Rookhope, £120.
1 So. Caradon, £120.
1 So. Condurrow, £7 1/2.
5 South Crofty, £14 1/2.
10 Tankerville, £9.
10 Thorp's Gawler Colliery, £12 1/2.
10 Tincroft, £20 1/2.
15 Van Consols, £2.
20 W. Tankerville, £1 14s.
10 W. Chiverton, £19.
3 West Tolgas, £64.
10 W. Cumberland Iron, £11 1/2.
5 West Selen, £25.
10 West Craven Moor, £13 1/2.
20 Wical Grenville, £13 1/2.
20 Wheel Ury, £3 2s. 6d.
20 Wheel Agar, £2 1/2.
5 Wheel Jane, £4.
15 Wh. Crebor, £2 1/2.

* Shares sold for forward delivery (one, two, or three months) on deposit of 20 per cent.
SPECIAL BUSINESS in POSITIVE ASSURANCE SHARES.
Business on hand in all the principal TIS, COPPER, and LEAD SHARES.

AQUARIUM, HOTEL, AND MISCELLANEOUS SHARES.—SPECIAL BUSINESS in Brighton Aquarium, Royal Westminster Aquarium, Langham Hotel, Inns of Court Hotel, Miner's Safe, Milford Docks, Newcastle Chemical, Lawes Chemical.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

COLLIERIES.—BUSINESS in all the PRINCIPAL SHARES and DEBENTURES.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

COTTON SPINNING SHARES.—These steady and remunerative Securities (comparatively little known on the London Market, but largely invested in by the manufacturing districts) can be bought at the present time at unusually favourable prices to pay good dividends on the capital invested. The following Shares (Oldham Mills) are amongst the safest and best of their class:—
Name of Mill. Amount. Last quarterly dividend. Closing quotations.
Central Spinning ... £2 5 ... £2 10 0 ... 30, 26, 20, 10 ... £3 1/2, £4
Greenacres ... 5 ... 4 0 0 ... 30, 30, 25 ... 5, 5 1/2
Green Lane ... 50 ... Fully paid ... 30, 25, 30, 25 ... 80, 85
Royton ... 5 ... 2 0 0 ... 35, 30, 20, 10 ... 2 1/2, 3 1/4
Shaw ... 5 ... 2 10 0 ... 12 1/2, 20, 16 ... 2 1/2, 3 1/4
Star ... 5 ... 2 10 0 ... 17 1/2, 25, 28, 20 ... 2 1/2, 3 1/4
Twist ... 5 ... Fully paid ... 5, 25, 28, 13 ... 2 1/2, 28 1/2
Windsor ... 5 ... 2 10 0 ... 30, 26, 20, 10 ... 3 1/2, 3 3/4
* The accounts of all the above companies are made up and profits divided quarterly.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

FOREIGN BONDS.—ARGENTINE.—EGYPTIAN.—RUSSIAN, SPANISH, TURKISH. SPECIAL BUSINESS, and latest information.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

RAILWAYS.—SPECIAL BUSINESS. Fortnightly accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

LEADHILLS (LANARKSHIRE).—SPECIAL BUSINESS in these Shares.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

PANDORA MINE (LEAD).—SPECIAL BUSINESS in these Shares.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MR. WILLIAM H. BUMPUS, STOCK AND SHARE BROKER,
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1837.

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

Mr. BUMPUS directs particular attention to MINING INVESTMENTS, and is in a position to give reliable information and advice respecting the same.

FOR SALE, at prices annexed:—
25 Argentine (Gold). 75 G. West Van, 8s. 9d. 50 Parys Mount, 12s.
10 Aberdunant, 12s. 9d. 15 Glenroy, £2 1/2. 5 Roman Gravels, £14 1/2
5 Blue Tent. 5 I. X. L. 10 Richmond, £2 1/2. 10 Rookhope, £2 1/2
25 Condes de Chili, 10s. 10 Kapanga. 10 Rookhope, £2 1/2. 10 South Condurrow.
10 Devon Consols. 20 Leadhills, £3 1/2. 10 Tankerville, £8 1/2.
Derwent, £4 1/2. 100 Malabar, 7s. 9d. 30 Van Consols, 41s.
10 Exchequer. 20 Marke Valley. 70 Wheel Grenville, 26s.
25 East Caradon, 26s. 20 New Chiverton, £5. (call paid.)
50 Frontino. 25 Pennerley, £1 6s.
100 Penstruthal, 10s.

IMPORTANT. To Capitalists, and all who seek SOUND and PROFITABLE INVESTMENTS, the following are particularly recommended, and are worth the SPECIAL ATTENTION of every Investor, viz:—

ARGENTINE COMPANY (LIMITED).
CONDES COMPANY OF CHILI (LIMITED).
BLUE TENT HYDRAULIC GOLD MINES (LIMITED).
The regularly published Reports from the above are sufficiently remarkable in themselves, and clearly prove the extraordinary value of the Properties. These are not SPECULATIONS, but SOUND INVESTMENTS of unusual merit, and, as such, they will shortly occupy very prominent positions in the Market. The Shares are certain to have a great rise, and large Dividends may be confidently expected at an early date. Intending Investors should, therefore, secure an interest at once. Full particulars of the Mines, and every information concerning the several Companies, may be obtained on application to Mr. BUMPUS, who has special facilities for dealing in the shares.

WILLIAM HENRY BUMPUS, SWORN BROKER.
Offices: 44, Threadneedle Street, London, E.C.
Business transacted in Stock Exchange Securities and Miscellaneous shares of every description. Fortnightly accounts opened. References given and required when necessary. A Stock and Share List forwarded free on application.
BANKERS—THE NATIONAL PROVINCIAL BANK OF ENGLAND, E.C.

MR. JORDAN has, on account of ill-health, RETIRED from the FIRM of HARVEY, JORDAN, AND CO., MINING ENGINEERS, ACCOUNTANTS, &c., of 57, MOORGATE STREET, E.C.

MESSRS. A. ENDEAN, FISHER, AND CO., STOCK AND SHARE DEALERS, 5, LOMBARD COURT, LOMBARD STREET, E.C.
Bankers: London and Westminster, Lothbury.

DIVIDEND LEAD MINE INVESTMENTS,
PAYING 8, 10, TO 12 PER CENT. PER ANNUM ON PRESENT PRICES: and

10, 20, 50, TO 75 PER CENT. PER ANNUM ON CAPITAL OF COMPANIES.

EVERY information respecting HOME and FOREIGN LEAD MINES and SHARES may be obtained of—

MESSRS. PETER WATSON AND CO.,
STOCK AND SHARE DEALERS,
54, OLD BROAD STREET, LONDON, E.C.

MR. ALFRED E. COOKE,
STOCK AND SHARE DEALER,
76, OLD BROAD STREET, LONDON, E.C.
(Established 1853.)

Transacts every description of Business in ENGLISH FUNDS, RAILWAY STOCKS, and MISCELLANEOUS SHARES.
SPECIAL ATTENTION GIVEN TO MINING ENTERPRISE.
TRADING COMPANIES' SHARES (including COTTON SPINNING) dealt in at close prices.
COLLIERY SHARES dealt in on best terms.
SHARES in NEGLECTED and DEPRESSED SECURITIES dealt in.
Every description of STOCKS and SHARES, either for INVESTMENT or SPECULATION, BOUGHT and SOLD at net prices.

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MINES.—LEADHILLS and PANDORA SHARES. SPECIAL BUSINESS and EXCLUSIVE INFORMATION.

COPPER MINES.—CATHEDRAL MINE, in the rich Gwynnapp District. Full particulars, and SPECIAL BUSINESS.

COLLIERIES.—CAKEMORE, CHAPEL HOUSE, and OTHER COLLIERIES DEALT IN AT CLOSEST PRICES.

RAILWAYS, FOREIGN STOCKS, &c.—HOW TO ACT. Speculative accounts opened on receipt of usual cover.

INVESTMENTS.—SAFE and REMUNERATIVE. Advice and information (based on experience) given.
ALFRED E. COOKE, 76, OLD BROAD STREET, LONDON.

MR. JAMES STOCKER, STOCK AND SHARE BROKER,
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1848.

BUSINESS transacted in all kinds of STOCK EXCHANGE SECURITIES, also in every description of BRITISH and FOREIGN MINING, COLLIERY, MANUFACTURING, and other SHARES.
SPECIAL BUSINESS in the following:—
Leadhills, £6 1/2. Pennerley, 25s. 6d. Cathedral, 26s. 6d.
East Van, £3 1/2. Glyn, 45s. 9d. Rookhope, 17s. 6d.
Great Laxey, £20. Llanrwst, £2 1/2. Ladywell, 31s. 9d.
Clementina. Van Consols, 37s. 6d. Penstruthal, 8s. 6d.
So. Condurrow, £6 16s. 3d. Great West Van, 7s. 9d. Glenroy, 38s. 9d.
Grogwinion, £5 1/4. Tan-y-Bwlch. North Laxey, 12s.
Van, £38 1/2. Bampfyde, 11s. 6d. West Asheton, 21s. 9d.
Tankerville, £8 1/2. Marke Valley, 30s. Parys Mountain, 12s.
Roman Gravels, £13 1/2. Devon Consols, £4 11s. West Grenville, 26s. 3d.
So. Prince Patrick, 15s. W. Godolphin. West Tankerville, 35s.
Derwent, £3 16s. 3d. Aberdunant, 13s. Combmartin, 9s.
Chapel House, £3 1/4. Wheel Crebor, 48s. 9d. Phosphate Sewage.
Richmond, £9 1/2. Exchequer, 41s. 6d. Frontino, 31s. 3d.
Eberhardt, £8 1/2. Chicago, £6 1/2. South Aurora, 6s. 9d.
Javali, 12s. 6d. Flagstaff, 19s. I. X. L., 19s. 6d.
Alma, 6s. 8d. Chontales, 5s. 3d. Gold Run, 10s. 9d.
Malpas, 15s. 9d. Don Pedro, 7s. Cedar Creek, 15s. 9d.
Rossa Grande, 1s. Santa Barbara, £2 1/2. Port Phillip, 13s.
Sweetland Creek, 5s. 6d. Birdseye Creek, 16s. 3d. N Zealand Kapang, £5.

JAMES STOCKER, SWORN BROKER.
Consols, Foreign Bonds, Railways, Bank, Telegraph, Gas, and all Miscellaneous Shares bought and sold, and fortnightly accounts opened for same. Shares sold for forward delivery on receipt of cover. List of prices and every information forwarded on application. References given and required when necessary.
BANKERS: LONDON AND WESTMINSTER.

MESSRS. W. J. TALLENTIRE AND CO.,
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20, CHANGE ALLEY, CORNHILL, LONDON, E.C.

Transact business in Stock Exchange Securities and Mining Shares of every description, either for immediate cash or the usual bi-monthly settlements, and also afford advice personally or by letter to executors, trustees, capitalists, and investors of every class in the selection of Securities for safe and profitable investment, their experience of the markets, extending over a period of more than sixteen years, together with special facilities for acquiring information, enabling them to act beneficially for clients.
They have established Corresponding Agencies in all the principal towns of the United Kingdom, and are prepared to deal in the various local Stocks and Shares at close prices. Orders per post or telegraph receive prompt attention.

INVESTORS SHOULD APPLY for a copy of Messrs. W. J. TALLENTIRE and Co.'s Circular, SENT POST FREE. It contains valuable information on Foreign Stocks (especially South American, Egyptian, and Turkish), Railways, and Lead Mines.

JOHN RISLEY (SWORN), STOCK AND SHARE BROKER,
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ESTABLISHED 18 YEARS.

References required with new business, or part payment in cash with orders. Business transacted at the following rates of commission:—Foreign Stocks, 1/2 per cent.; and Mining Shares of £4 each and upwards, 1/4 per cent.; under £4, 1s. per share.
SPECIAL RECOMMENDATION:—Parys Mountain, Wheel Crebor, West Chiverton, Santa Barbara, and Wheel Grenville.

MESSRS. ENDEAN AND CO., STOCK AND SHARE DEALERS, 86, GRACECHURCH STREET, LONDON, E.C.

CAUTION.—TO GUARD SHAREHOLDERS.
The shares are £3 to £3 5s., intrinsically worth £10. Some unprincipled shareholders are adopting the following *modus operandi*:—In the first instance, shares are offered to a few of the shareholders by circular or letter (which they have not got) under price, with a view to frighten shareholders out of their shares, and then, though a clerk, they offer the shares to a few of the other shareholders at the full price, and they make a good profit by the transaction.
The mine is looking splendid throughout, bordering upon high percentage dividends, which will be lasting. It will doubtless be the great prize in the coming spring.
ENDEAN AND CO.
86, Gracechurch Street, London, E.C., 24th October, 1876.

G. E. SIMPSON, STOCK AND SHARE DEALER,
6, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C.

JOSEPH JOHN PYNE,
MINING BROKER
AND
STOCK AND SHARE DEALER,
6, BISHOPSGATE STREET LONDON, E.C.

Mr. PYNE having been connected with MINING ENTERPRISE for upwards of FOURTEEN YEARS, and having been a DIRECTOR of MINES in SHROPSHIRE, MONTGOMERYSHIRE, CARDIGANSHIRE, CARNARVONSHIRE, YORKSHIRE, and in VENEZUELA, has had great opportunities of becoming acquainted with this particular branch of industry, and will always be desirous of giving every information in his power to all Investors transacting business with him.
ALL DESCRIPTIONS OF SHARES are dealt in, including BRITISH and FOREIGN STOCKS, and RAILWAY SECURITIES.
BANKERS—THE ALLIANCE BANK (LIMITED).

MR. CHARLES THOMAS,
MINING AGENT, STOCK AND SHARE DEALER,
3, GREAT ST. HELEN'S, LONDON, E.C.

WEST GODOLPHIN MINE.—Full particulars of this property may be obtained on application to the Secretary, at the offices of the company, 3, Great St. Helen's, London, E.C.

DOLCOATH, CARN BREA, TINCROFT, BASSET, SOUTH CONDURROW, MALABAR, OLD TREBURGET, LEADHILLS, NEW ZEALAND KAPANGA, WHEEL GRENVILLE, and PENNANT Shares may be obtained at the lowest market price on application to—
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MESSRS. A. W. THOMAS AND CO.,
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MINING AGENTS, AND STOCK AND SHARE DEALERS.
BUYERS of Miners, South Condurrow, and West Godolphin Shares.

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Safe Investments in Railways, Preference and Debenture Stocks, American, Indian, Foreign and Colonial Stocks, &c., Bank, Telegraph, Tramway, Dock, Insurance, Tea, Gas, Shipping, Financial, Commercial, Mine, and Miscellaneous Stocks and Shares, &c.—Dividends, when Payable, Market Prices, Reports, &c.
CAPITALISTS, SHAREHOLDERS, INVESTORS, TRUSTEES
will find this Investment Circular a valuable, trustworthy, and Safe Guide.
GOULD SHARP & CO., SHAREBROKERS, 42, POULTRY, LONDON, E.C.
Established 1852. [Bankers: London and Westminster, Lothbury, E.C.]

GROGWINION LEAD MINE (LIMITED).
MESSRS. H. HALFORD AND CO., STOCK AND SHARE BROKERS, OF EXCHANGE CHAMBERS, CHANGE ALLEY, LOMBARD STREET, LONDON.

Strongly recommend the ABOVE MINE as one of the BEST and SAFEST MINING INVESTMENTS. The dividends are declared half-yearly—the one for the last half year was 12 1/2 per cent.; the next one will probably be 20 per cent. The "reserves" are valued at £300,000. Every information upon application to the above.
Daily Closing Price Lists of Mines and all other Securities sent post free on application.
Messrs. H. H. and Co. are BUYERS of Shares in GROGWINION MINE, and also of Shares in WYE VALLEY LEAD MINE; and they will be GLAD TO HEAR from BROKERS or DEALERS who have ANY FOR SALE.

NOTICE.
BROKER OR DEALERS HAVING SHARES FOR SALE in either GROGWINION or WYE VALLEY MINES can FIND IMMEDIATE PURCHASERS on application to—

H. HALFORD AND CO.,
STOCK AND SHARE BROKERS,
EXCHANGE CHAMBERS,
CHANGE ALLEY, LOMBARD STREET.

MR. EDWARD ASHMEAD, 62, CORNHILL, LONDON,
LONDON MINING AGENT, ACCOUNTANT, AND AUDITOR.

Purchases and Sales of Mining Shares effected, and information given on Mines and Mining personally or by letter. Mr. ASHMEAD has been constantly engaged in Mining since 1856. British Mining Stock, in good concerns, should be purchased now, prices being low. Home Securities will rise.

MR. T. E. W. THOMAS, SHARE BROKER,
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ESTABLISHED 1857.

The following are the latest prices at which business could be done. Where the difference between the buying and selling price is wide transactions may be effected at an intermediate price:—

Buyers. Sellers.		Buyers. Sellers.	
Belidris	£ 1 ... £ 1 1/2	Penstruthal	9s. ... 11s.
Devon Great Consols	4 1/2 ... 4 3/4	Plynlimmon	5s. ... 6s.
Don Pedro	5s. ... 6s.	Prince of Wales	3s. ... 3s.
Eberhardt	8 ... 8 1/2	Richmond (ex div.)	9 ... 9 1/2
East Caradon	1 ... 1 1/2	Roman Gravels	13 1/2 ... 13 3/4
East Van	7 1/2 ... 8	Rookhope	14s. ... 16s.
Exchequer Gold	1 1/2 ... 2	Santa Barbara	2 1/2 ... 2 1/2
Flagstaff	1 1/2 ... 1 1/2	San Pedro	10s. ... 10s.
Frontino	1 1/2 ... 1 1/2	Sierra Buttes	1 1/2 ... 1 1/2
Glenroy (New)	1 1/2 ... 1 1/2	South Condurrow	7 ... 7 1/2
Glyn	2 1/2 ... 2 1/2	So. Roman Gravels	3 1/2 ... 3 1/2
Great Laxey	20 ... 21	Tankerville	9 ... 9 1/2
I. X. L.	11s. ... 11s.	Tincroft	20 ... 21
Javali	9s. ... 9s.	Van	36 ... 37
Ladywell	1 1/2 ... 1 1/2	Van Consols	1 1/2 ... 2
Leadhills	6 1/2 ... 6 1/2	West Asheton	1 ... 1 1/2
Marke Valley	1 1/2 ... 1 1/2	West Chiverton	18 ... 19
North Laxey	14s. ... 15s.	West Tankerville	1 1/2 ... 1 1/2
New Quebrada	3 1/2 ... 3 1/2	Wheel Crebor	2 ... 2 1/2
New Zealand Kapanga	4 1/2 ... 5	Wh. Grenville (call p.)	1 1/2 ... 1 1/2
Parys Mountain	11s. ... 12s.	Wheel Jane	2 1/2 ... 2 1/2
Pateley Bridge	2 1/2 ... 3	Wheel Ury	2 1/2 ... 3
Pennerley	1 1/2 ... 1 1/2		

MR. WILLIAM WARD
CROSBY HOUSE,
95, BISHOPSGATE STREET WITHIN, E.C.,
STOCK AND SHARE BROKER.

FERDINAND R. KIRK, STOCKBROKER
5, BIRCHIN LANE, E.C.

SPECIAL ATTENTION directed to FOREIGN BONDS and RAILWAYS. Some unusual opportunities are now offering for sale or purchase. Fortnightly accounts opened on the usual terms.
Bankers: London and Westminster, Lothbury.

Wherever a difficulty arises as to the price of any security, whether quoted or not, application should be made as above, when full particulars will be forwarded by return of post.

MESSRS. ARCHARD JONES AND CO.,
STOCK AND SHARE DEALERS,
No. 7, NEW BROAD STREET, LONDON, E.C.

The "Investment Circular and Financial Record" for December may be had gratis and post free on application.

MESSRS. J. TAYLOR AND CO.,
MINING ENGINEERS AND INSPECTORS,
86, LONDON WALL, LONDON, E.C.

Have Agents in England, Scotland, Wales, and on the Continent.

WILLIAM B. COBB,
62, CORNHILL, LONDON, E.C.
Bankers: The Alliance Bank.

Business transacted in every description of British and Foreign Stocks, Mining Shares, &c.
Fortnightly accounts opened in rails, foreign stocks, and mining shares.
VICTORIA (LONDON) MINING COMPANY (LIMITED).—£1 shares specially recommended, paying dividends at the rate of 16 per cent. per annum on present price.

BODIDRIS LEAD MINING COMPANY
(LIMITED).
Capital £20,000, in £1 shares.
Messrs. ENDEAN, FISHER, and CO. call particular attention to the prospectus of this company now issued; they are confident it is one of the best, and most substantial undertakings placed before the public.
The present prospects, and the discoveries made, are guarantees of its future prosperity. Those who wish to invest in one of the prizes of the day should communicate with us at once. Prospectus and map forwarded on application.
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Bankers: London and Westminster, Lothbury.

STOCK.—HAYWARD TYLER AND CO., of LONDON, have now ready ENGINES, BOILERS, and "UNIVERSAL" STEAM PUMPS having made extensive alterations in their premises to enable them to keep a stock.

In Twelve Monthly Parts, royal 4to, uniform with the Author's Treatise on Coal Mining, and, when complete, will contain about 150 plates, accurately drawn to scale, with descriptive text.

Part I, now ready, price Five Shillings.

MINING MACHINERY:

A DESCRIPTIVE TREATISE ON THE MACHINERY, TOOLS, AND OTHER APPLIANCES USED IN MINING.

By G. G. ANDRE, F.G.S., Assoc. Inst. C.E., &c.

LONDON: E. and F. N. SPON, 48, Charing Cross.

NEW YORK: 44, Broome-street.

Royal School of Mines.

PROF. SMYTH'S LECTURES ON MINING—No. LVII.

[BY OUR SPECIAL REPORTER.]

The material brought from the mine having been spalled and divided into several classes by means of a somewhat similar kind to those used in collieries, or of Rittinger's drum, we have next to consider into what various classes it may be desirable to divide the material. The number of divisions and the names applied to them vary much in different mining districts, but we may conveniently consider them as six different classes.—1. *Prill* (*Stuf-erz*), the best division, which will not require anything further to be done to it to fit it for the purpose of the smelter, except perhaps to be broken up; the equivalent North of England term for this class is *bing ore*.—2. *Best drudge ore* (*Aufschlag-erz*), which is mixed with a quantity of stone, &c. and will require to go through some process of comminution; it is a moderately rich class, which may be worked without machines, by a hand process.—3. *Second class of drudge ore* (*Walz-erz*), which is only suitable to be dressed by some comminuting apparatus, such as we have to look at to-day.—4. *Stamped stuff* (*Post-erz*), of which, in a large mine with varied products, it will be advisable to have two different kinds, the second variety being called by the name of—5. *Halvans* (*Berg-erz*).—6. *Deads*, or *attle* (*Berg*), the material to be thrown away. This latter name does not mean that the material is absolutely free from ore, but that the quantity it contains is so small as not to be worth while dressing. Having made these divisions, we come next to consider the way in which we have to deal with them. A great deal of the success of the mine depends on the judgment of the management in selecting a suitable spot for a dressing floor. It is quite obvious that it ought to be on the same level as, or perhaps a little lower than, the level of the main outlet of the mine, in order that the stuff may not have to be dragged up to a greater height. A second point of great importance is to select the ground so as to get a gentle slope, which will admit of being laid out in a series of steps, in which a water-wheel, turbine, or similar machine, and dressing apparatus can be placed. There may be a first range for the better classes of ore (Nos. 1, 2, 3, which will be treated of in the present lecture), a second one for the inferior classes, and usually a third for dealing with what is called slime, or matter held in suspension, beyond which there should be space enough and fall enough to place slime pits in which a greater part of the material, which would otherwise flow into the stream, may accumulate. In continental districts there is commonly a great deal more building in connection with these places than in this country, in consequence of the greater extremes of climate.

We may look first at the processes to be adopted for comminuting the ore. With the prills the process will depend very much on the firm in which it presents itself. Very often the breaking of it up by hand will be sufficient, but when the quantities are large we may have recourse to the crusher, taking care, however, to work it by itself, so as not to get it mixed with inferior classes of ore. In districts where the ore and matrix are not very hard, as in limestone districts, a great deal is done by hand. This is done with spalling hammers, which, according to the nature of the material, will weigh from 6 to 8 lb., or with very hard caps or iron-tone may be much heavier, going up sometimes to 18 lb. In the matter of breaking the ore with picking hammers, and sorting it at the same time, the Germans are, as a rule, in advance of us, and they lay great stress on it, because of the very mixed class of ore they have. Although many substances are associated with tin ore, they are generally not capable of being extracted by simple comminution and picking, but all has to go into classes 4 and 5 as tin stuff. In the case of copper ore it is frequently noticeable that you may get pieces of lead or other ore of a size capable of being readily picked out by hand, after being struck off with a blow from the picking hammer. Obviously it will be a very great advantage to separate the materials as much as possible in this manner, thereby avoiding the expense and trouble of separating these portions in after processes. The class of hammers used for this purpose varies a great deal; a very general form is that represented by the common cobbling hammer (short handled, the head being a comparatively long bar of iron, curved, and with the convex side towards the hand, and with rectangular ends). The people working them are ranged at long tables, with cast-iron or great slabs of stone on which to lay the ore to be struck, sometimes called knocking stones. In some districts of Wicklow where the rocks show a tendency to slaty cleavage, the people are in the habit of guarding their fingers by placing an iron ring round the ore. More or less cubical fragments of lead are picked out by this means, and thrown into a division by themselves, are sold to the potters as potters' ore, and fetch a much higher price than they would among the ordinary ore. This is only one instance of the importance of picking the ore carefully, and making as thorough a separation of it as circumstances will allow. The best portions of the ore thus separated may go to the prills, and will require no further treatment, the remainder will go to one of the inferior classes for further operations. The lads employed in these picking operations (who are, it may be remarked, as healthy a set of lads as you can find anywhere, notwithstanding the notion that some theoretical people have that they are cruelly used, and ought not to be allowed to be so employed) get a most valuable training, which stands them in good stead when they afterwards come to engage in the more active underground work. The further breaking up of classes 1 and 2 will be done with a backing iron—a flat plate of iron, with a loop at the back, into which a handle is wedged. These hand arrangements, though kept up here and there in small mines, would obviously be insufficient to meet the demands of mines where they have to deal with a great quantity of stuff. Consequently machines of various kinds have to be used, and some of these may now pass under review. Over and over again it has been proposed to employ the simple tilt hammer, lifted by arms from a wheel, and aided in its descent by a strong spring. As a general rule, from its throwing about the stuff in all directions, it has not been thought a suitable apparatus, and is not used now. Many substitutes for it have been proposed—Nasmyth's hammer, and other steam hammers; and these have been largely used in some parts of the United States, especially in Lake Superior district, but we are not in possession of sufficient details as to expense, wear and tear, &c., to enable us to form a conclusion as to their value. An instrument now used largely in this and other countries is that which was brought forward under the name of Blake's stone-breaker. It is made excessively strong; a strong bed of cast-iron, slightly inclined (the angle of inclination being adjustable by the means of some arrangement, such as a screw), and supported against a strong pillar; a movable piece of iron, which moves through a small distance, crushes the pieces of stone against the iron bed, and then allows them to fall between. The pieces thrown in will be from 6 to 10 in. diameter, the number of blows being 120 to 150 per minute. The material falls through partly as powder, partly as small fragments, the size of which may be to a great extent regulated by the amount of opening you give between the lower ends of the plates. In some cases this machine cannot be used advantageously; it has been found to give too large a proportion of powder as compared with the more expensive process of hand spalling. An arrangement should be attached, by means of which a stream of water, or other contrivance, should separate the material which passes through, and give you two or three divisions. As a general rule, this ma-

chine can be regarded as a preliminary to some processes to be referred to subsequently; they get through an amazing amount of work, and must be very highly spoken of. If, as sometimes occurs, the men take a pleasure in throwing everything into the machine without any kind of assortment, because they see how easily the machine breaks these things up, material which might have been separated by picking and kept separate, will all be mingled up together, and this may involve extra processes at a subsequent stage, which may take days to perform.

Of other machines several have been applied with success where the material has to be brought down to a small size. For example, the edge-rolls have not unfrequently been applied—a circular bed plate, with a couple of millstones connected by a horizontal axis set to run round the bed. The rubbing edge is generally a band of iron, as is also the bed. This sort of grinder can deal only with small quantities, and as there is a rubbing action, as well as a rolling action, some of the material is ground down to an impalpable powder. Such powder may be very suitable for certain things, but where you want the ore in small fragments, in order to separate it by specific gravity, it is very unsuitable. Such machine may be useful where an amalgamation process is to be carried on, and is seen under a slightly different form in the Mexican arrastra, and sometimes in our own country, for the powdering of flints. Instead of the millstones there are two long cross axes, with a heavy block of stone hung at each end, these blocks being the rubbing agents. In the North of Italy some machines of these kinds, but of an improved character, may be seen in use for the purpose of grinding down and amalgamating the gold ores of those districts. In the dressing of tin ore there is one department where a product is obtained which is somewhat too coarse to go on dressing with, and is at the same time so fine that you can scarcely expect to get it finer with the ordinary stamps arrangements, so that some kind of pulveriser has long been a desideratum. Several have been proposed. Mr. Dingley brought out one somewhat after the principle of the arrastra, a number of which are now working in the tin mines of Cornwall, but it is a question whether these processes may not yet be very greatly improved. Some years ago a notable success was achieved for a very short time only by a machine brought from across the Atlantic by a Mr. Berdan. A large cast-iron basin, somewhat inclined, was made to revolve, and the rubbing was done by two loose balls inside it, one weighing 24 cwt., the other about 9 cwt. A committee of the Society of Arts examined it, and pronounced it the most satisfactory machine that had ever been devised for grinding and amalgamating the ores. The miners did not like the look of it, but some of these amateur critics gave such a high tone to their report that a company was formed. No doubt the machines were capable of doing good work, but the amount they could do, compared with some machines at work in the mines, was very small. The inventor and his assistant obtained gold out of everything that was sent to them, gossan, granite, &c., all yielded about 1 oz. of gold to the ton, but when these two had returned across the Atlantic none of these materials could be found to contain gold at all. The lecturer was not aware that any of these machines were still in existence, though some curious relics of them might be seen in North Wales some time ago. A similar machine was introduced about the same time by a person of the name of Britton, and may be seen at the present time at work in the neighbourhood of Dolgelly extracting gold from the ores. In this sort of pestle is worked round inside the basin by means of a crank movement from a water-wheel. These machines are not capable of getting through a large quantity of work, but for prills or the second-class they may answer very well. In some of the continental and Colorado mines dry stamps are used for particular classes of ore, and a good deal of dust is produced, but beyond this there is not likely to be much loss.

We come now to a construction which has done good service in ordinary copper and lead mines—the crusher. The lecturer had not been able to ascertain the name of the inventor of this machine, nor the precise date of its invention, but it suddenly made its appearance in the neighbourhood of Tavistock in the early part of this century. The crusher consists essentially of a pair of rollers, which are mounted on a strong frame and rub against each other. The main points to notice are these—first, there are two cheek pieces or frames of cast-iron 5 in. to 6 in. high resting on a strong beam, the whole length of the frame being 7 ft.; near the ends are strong uprights about 1 ft. high. The rolls are fitted into the frame by the intervention of a couple of plunger blocks; the blocks on one side being fitted permanently close to the upright, those on the other being movable to allow of adjustment of the distance between the rolls. The rolls are made to revolve towards one another by a suitable axis or shaft, usually direct from the water-wheel if the wheel is on a small scale, or by means of gearing if a different velocity from that of the wheel is required. A lever 8 ft. long with a weight at its end is centered to an arm from the upright adjoining the movable block, and one arm of it is connected with this block. In case of a piece of iron or steel getting in between the rolls, instead of smashing everything to pieces, it will merely force the rolls apart by lifting the weight at the end of this lever. The great peculiarity of these rolls is their proportion, and this has been brought about only by experience. It is found advisable to shorten them considerably, and to increase their diameter, being commonly from 2 ft. to 30 in. diameter, and in some instances 36 in. or 37 in., the breadth at the same time being not more than 10 in. or 12 in. The form has been varied here and there; at the Great Devon Consols they have found it advisable to put in rolls of two different breadths, 34 in. rolls, one 22 in., the other 24 in. broad, the reason assigned being that this is the best way possible of meeting the wear and tear, which with even the best cast-iron is very great, and gives rise to the necessity of frequently changing and renewing them. The rolls consist of three parts, a square shaft, an outer solid piece of cast-iron called the core, and outside that the shell. The latter is usually of cast-iron, sometimes chilled, and after it has undergone a certain amount of wear it is removed from the core and another put on.

In Germany and on the Continent generally they have taken to employ strong springs to keep the rolls in sufficiently close contact (instead of the levers described above), and the lecturer did not find they were open to the inconveniences which had often been asserted attended the use of springs. One great point to be decided is the velocity which should be given to the rolls to get the best work from them, and another whether water should be allowed to pour down between them to keep them cool, and to assist their action. In the case of many of the lead ores derived from strata of clay-slate a great quantity of the vein stuff is apt to make up a very adhesive clay, and to clog the rolls, so that water cannot very well be used. In the case of quartzose material it is a very good addition. The speed must be varied according to the character of the material; it may be taken as from 90 to 80 ft. per minute of the circumference of the rolls. The quantity of ore which may be crushed to a convenient state may be said to vary from 5 tons to as much as 15 tons per hour. The material passed away from the crusher sometimes is allowed to fall direct into an inclined sieve. That which is small enough passes through into a trough, and is carried away by a stream of water, or into a wagon if it is necessary to keep it dry. That which does not fall through is raised up again to the crusher floor, sometimes by an arrangement of scrapers worked by the water-wheel. There may be a pair of upper rolls with strong teeth, from which the stuff may pass to a second pair of rolls with smooth surfaces. The great difficulty is that, from the variable na-

ture of cast-iron, the surfaces wear unequally, and it is difficult to grind the whole down minutely and equally. On this account the next step desirable after the grinding processes has brought the ore down to a small and moderately equable size is the dividing it into classes, and treating each class separately.

NORTH STAFFORDSHIRE INSTITUTE OF MINING ENGINEERS.

At a meeting of the members of this Institute, held at Stoke-on-Trent, on Wednesday, Mr. DANIEL ADAMSON, the president, occupied the chair. Mr. W. H. Gilderoy, manager, Brownhills Iron and Coal Works, Tunstall, was elected a member of the Institute.—The President stated that the council had passed some resolutions from which they expected much benefit to be derived. They would shortly have to submit to the Institute a proposal for altering the bye laws, so as to enable any member to introduce, *à la carte*, a subject for discussion. Papers had been promised by eminent men on a process of sinking pit shafts through watery strata, on boring by mechanical means instead of by manual labour, on the application of steel to appliances for mining, and on the rise and development of locomotives. A paper was likely to be read by the president of the Field Naturalists' Club, before the members of that club and the Mining Institute, on the mining faults of the district. A paper had also been promised on the metallurgy of copper, which would bear on the casting of liquid metal under pressure. The council would also submit for the consideration of the Institute the desirableness of bi monthly instead of monthly meetings. It was unfortunate that Mr. Marshall, of Leicester, and Mr. Storey, of Kilsgrave, who had supplied papers on "The Sectional Boiler" (Shepherd's patent) and "Fan Furnace Ventilation" respectively, had telegraphed to say that they were unable to attend to take part in the discussion of those papers, which would take place that evening.

Mr. HOMER, in reference to Shepherd's Sectional Boiler, said that some years ago he saw one similar to that which Mr. Marshall had described. It was commonly known as the bottle boiler, and when he was looking in at the fire-door the fireman advised him to draw back, remarking that two of the sections had already burst that morning. If they could successfully adopt a system of taking a bottle in sections underground, and connecting them together, it would be a great benefit, but he certainly must say as far as he was enabled to judge he had not a good opinion of it.—Mr. F. SILVERSTEIN, of Newcastle, thought it would be difficult to persuade the colliery owners of North Staffordshire to invest money in Shepherd's patent. It appeared to him to be of the Howard type, which was now numbered with the past, and he did not think it would ever be brought into general use.—Mr. J. ASHWORTH, of Burslem, said Shepherd's patent appeared to be a flash-draft one, and if dirty water should be used in it it would encrust the tubes. There did not appear to be much convenience for cleaning it.—Mr. J. MACDONALD, one of the vice-presidents, said he had not had much experience of sectional boilers. Taking a colliery manager's view of the question they should have a large heating furnace, so as to utilise the common stuff which was about collieries in the shape of fuel.

Mr. ASHWORTH said a series of trials had been made with the Fairbairn, the Lancashire, and the Elephant boilers, and the results were summed up in favour of the Elephant, in which they got a large quantity of fire space, small diameters, high pressure, and everything they desired.—Mr. HOMER said he had seen the Elephant boiler at work on the Continent. It did a great amount of work with a little fuel, but as a rule it carried low pressure, and he did not see anything above 35 lbs. to the square inch.—The President then delivered a somewhat lengthy address on the subject, in which he condemned the Howard and the "Safe and Sure" boilers, and contended that sectional boilers aiming to carry small quantities of water were not steady steamers. Unless they had a given quantity of water to a given quantity of steam they had internal havoc going on while they thought there was nothing but safety. Boilers constructed to carry a small quantity of water, and do a great amount of work, could not succeed in absorbing the heat with sufficient rapidity to remain steady heaters and steamers. It was an utter waste of time to construct tubular boilers to produce a great quantity of steam with a small quantity of coal, for as soon as they withdrew the pressure violent ebullition took place, and the water could not carry the steam away.—Mr. C. LLOYD, Stoke, spoke in favour of the Safe and Sure type of boiler.—The discussion was adjourned, as was also that on the question of ventilation, in order that the writers of the papers might be present.

RAILWAY PROGRESS IN VICTORIA.

The advances which have come to hand this month from the great and progressive colony of Victoria are of some interest in respect to the advance of railways among the Victorians, and the probable demand for rails which may in consequence be anticipated. A line to Beechworth, 22½ miles in length, which leaves the North-Eastern system at Wangaratta, has just been inaugurated by His Excellency the Governor, who was accompanied on the occasion by several members of the Victorian Ministry. A kind of official imprimatur has thus been given to the work of Victorian railway construction; it could not well be otherwise, since the Victorian railways are made by the Victorian Government, and if it did not approve them it would, of course, not make them. At present there are 650 miles of Government railways in Victoria, and they have assisted the development of the colony so materially that further lines are now in course of construction in it to the extent of 320 miles more. The Victorian Government has thus mapped out a railway network of close upon 1000 miles, but the Victorians are still clamouring for more lines. At the date of the last advances from Melbourne proposals were before the Victorian Government for the construction of no less than 2005 miles more railway. The estimated cost of carrying out these various schemes is between 12,000,000, and 13,000,000, or about as much again as Victoria has already expended upon her railways. It does not appear likely that the Victorian Government will consent all at once to the establishment of the 2005 miles of new line which have been suggested for its consideration and adoption. Certainly it would not be prudent for the Victorians to embark recklessly in the improvident construction of premature railways, still Victoria contemplates a new railway loan for 1,500,000, so that there is a tolerably well assured probability of a steady demand for rails and plant on Victorian railway account.

It must be borne in mind that circumstances have greatly changed with Victoria during the last 25 years. At the close of 1851 the discoveries of gold which had then been just made in the Australian colonies were beginning to direct the attention of the whole world to them, but still Victoria had great difficulties to face and overcome when she commenced in 1853 the construction of her first railways. Then her population was not half what it now is, labour and materials were inordinately dear, and loans for public purposes could not be raised at a lower rate of interest than 6 per cent. per annum. The result of all these combined conditions was that for some years the first Government railways made in Victoria were dismal financial failures. The charges which they involved annually at first to the Victorian Treasury was so severe that the construction of further extensions was, perforce, indefinitely postponed. Gradually, however, the aspect of affairs improved. The colony prospered, and in exact proportion as it prospered its railways began to prosper also, while the cost of labour and materials was likewise somewhat reduced. The credit of the Melbourne Treasury also became so strong that in 1868 Victoria succeeded in raising a considerable loan at the sensibly easier interest of 5 per cent. per annum. From that moment the situation of the colony was changed, and the work of Victorian railway construction has since been resumed and prosecuted with more or less vigour. The Victoria of to-day has become such a strong and thriving settlement, and such a bright future appears to be opening out before its largely augmented population that Victorian Government debentures are now readily disposed of by the Victorian Government at the still further reduced interest of 4 per cent. per annum. As the

cost of constructing and equipping a Victorian railway is now only about one-sixth of what it was 20 years since, and as the construction and equipment capital can be raised upon very materially easier terms than those upon which it could be procured in 1855 or 1856, it follows that the establishment of a new Victorian line is a much less formidable matter than it formerly was. This being the case, the Victorian Government is naturally disposed to accede, to some extent, to the clamour of the Victorians for additional railway communication, which will, no doubt, materially assist the development of their beautiful colony.

MINING AND STOCK EXCHANGE NEWS OF THE WEEK.

Messrs. F. W. MANSELL and Co. (Sworn Stock and Share Brokers), Pinner's Hall, Old Broad-street, write to us as follows:—

THE COMSTOCK MINES.—The annexed figures approximately set forth the bullion produced from the principal Comstock Mines during the past month:—

Belcher	\$ 100,000
California	1,178,200
Chollar-Potosi	49,100
Consolidated Virginia	1,150,800
Justice	174,980
Leopard	70,000
Manhattan	119,700
Northern Belle	171,600
Ontario	64,900
Ophir	250,000
Rex	7,800
Tybo Consolidated	70,000
Modoc Consolidated	40,000
Total	\$3,533,500

SILVER MOUNTAIN MINES.—EXCHEQUER, I.X.L., ISABELLE, &c. (No. VII.)—In addition to the mines already mentioned, which are at present the only active mines in the Scandinavian Canyon, there are many others held by private individuals, which deserve a more extended description than is possible to give at the present time. In the future, when these comparatively dormant locations shall be developed, it may be of interest to your readers to note their gradual improvement as one by one they pass into the hands of capitalists, preparatory to extended explorations. Therefore, at present, what may be said of one will apply equally to the majority of the locations in Scandinavian Canyon, especially regarding their general character and susceptibility of future value as mines. There are, undoubtedly, interspersed among those already mentioned, other locations which cannot justly claim the attention merited by others. It would be surprising, indeed, were not such the case, for, as all must be aware, at the time of a mining excitement, when a new district or locality is thrown open to the mining community, every available location is soon taken, and the spirit of desire for the possession of equally valuable lodes causes prospectors in many instances to lose sight of the difficulties attending the development of new lodes, and, during an era of unusual activity or excitement, possess themselves of lodes which under ordinary circumstances they would pass with merely a superficial notice. This is a feature of the flush times of every mining district, and it is universally conceded by all who have followed its *minutiae* that mining in its many and varied forms is the most alluring avocation known to man. This was the incentive to the two young Grosch, who left California in 1852 to search for gold upon the surface below which has been since discovered the stupendous Comstock Lode. As far as searching after argentiferous ores was concerned, the idea does not appear to have entered the heads of any of the pioneer Washoe miners, if we except the above-named Grosch Brothers. While they made gold washing their principal business, they seem to have entertained the idea that there was silver also in the country, and, being educated mineralogists, with some knowledge of metallurgy, spent much time in seeking after this class of ores. That they succeeded in finding what they considered silver-bearing lodes is well established, as they carried to California and there exhibited samples of ore carrying a considerable percentage of that metal. By some it has been claimed that they obtained the samples from the Comstock ledge itself, but this is obviously a mistake, unless we consider the ore channel that passes through the present Dayton claim as being on the mother lode, for there can be no question but they obtained their best specimens from that neighbourhood.

On a sort of bench, 200 ft. above the American ravine, and on a line with the Dayton croppings, the remains of a shaft sunk by these young men are still to be seen, the fragments of a rude furnace erected nearby, and used by them in experimenting upon the ores, being also visible. They probably never pushed their researches farther north than Gold Hill. Certain it is if they had ever found any of the rich silver ores of the Comstock proper, or at least such as were first struck at Virginia City, they being qualified to appreciate their value, would have taken measures to secure the discovery and turn it to practical account. The fact is they never found any ores of that character, yet to these young men more than to any others is due the merit of having first paid attention to the subject, and of actually engaging in a search after silver ores on the "Eastern Slope," and it is not improbable that they would, had their lives been spared a little longer, have been instrumental in making more important discoveries of this metal. Comstock, whose name the Veta Madre bears, had no more to do with its discovery than the man who is supposed to occupy the lunar attendant on our planet. The circumstances that led to this singular and awkward misnomer will be explained in another paper.

THE SILVER QUESTION.—As we indicated would be the case, silver continues to improve in value. The latest advices from San Francisco state that silver bullion remains strong. Its present price would have appeared highly satisfactory a few months ago. The demand for silver coinage in several continental countries seems to be making itself felt in the world's market, and the exaggerated fears of an over supply are becoming dissipated. The heavy bullion sellers have done wisely in not crowding the markets and forcing their sales. *Appropos* of this question, it may be mentioned that a project has been set on foot to start a new system of banks on a silver basis in the various mining districts of Nevada, California, and Utah. The design is to receive deposits of silver coin and bullion, issuing notes against them, and thus make silver available for circulation in sums which the weight and bulk of that metal now preclude. The note system appears to be the only practical mode of utilising silver in quantities as a circulating medium. Pending the action of the silver commission on the double standard question, banking on the silver note basis presents the simplest solution of the difficulty. Any way to obtain an improved market for the silver of the Pacific Coast will do much to facilitate and animate business, and will first of all effect a better feeling in mining stocks. If these silver note banks be established on a firm footing throughout the districts which produce and are interested in silver, a large outlet would be provided, and much absorbed. There can be no doubt that the scheme is feasible if carried out properly, but if it is proposed in this way to put a fictitious value upon silver the plan cannot but prove a failure. When the double standard comes again into use silver will return to its normal condition as money, and not simply pass from hand to hand as a commodity. At the date of the last advices the San Francisco Mint authorities were paying \$1 17c. per ounce for silver, a small advance on former quotations. In London during the week silver has again been firmer at 55½d. per oz., some Mexican dollars have been disposed of at 56½d. per oz.

ISABELLE (Gold and Silver).—Among the distinctive features of this consolidation of claims is the presence of the Veta Madre, the Mother Lode of Silver Mountain, much more conspicuously marked than in the Comstock group in Mount Davidson. The Veta Madre of Mexico has been more extensively worked than any other silver lode in that territory, but it is very doubtful whether it is the richest vein existing in that country. The metallic silver lodes in the State of Chihuahua are probably much richer. A single bonanza of metallic silver ore discovered in one of these mines is represented to have taken 18 years to exhaust, and is variously estimated to have yielded from \$20,000,000 to \$50,000,000. First-class ore from the Chihuahua Mines yield all the way from \$15,000 to \$30,000 per ton. The Comstock has nothing equal to this. There is no knowing

what might have been accomplished in the silver mines of Mexico and Peru had they been systematically worked. What, if instead of human backs, long swinging poles, and rickety whims bringing the ore to the surface from the depths below, and the primitive arrastres separating the metal from the vein matter, the improved machinery now employed on the Comstock had been in use? Under such a condition of things what would have been the showing in the returns, and into how brief a space would the three centuries operations have been contracted? Instead of a bonanza taking 18 years to exhaust we should probably have had it all out within as many months. Many of the Central Mexico mines have for years been privately worked by English capitalists with improved machinery, and there has been in consequence a marked increase in the aggregate silver product of the country, but the mechanical appliances are vastly inferior to those used on the Comstock and the neighbouring Silver Mountain mines.

The question as to the origin of metals is one of general interest. Your esteemed correspondent, Mr. J. A. Morgan, has directed attention to our statement that "the igneous theory is nearly exploded among scientists and miners," raising the point how were the fissures filled? This is not always readily answered. The theory which holds good in one instance may be utterly at fault in another. Thus, in the copper mines of Lake Superior the metal is so closely associated with dykes of undoubted igneous origin that injections of the metals and enclosing trap at the same operation at once suggests itself; the same phase of vein formation occurs in Little Cottonwood Canyon, Utah, where the trap dykes contain copper, lead, and silver in at least two instances, while the silver mines in the immediate vicinity are of undoubted aqueous origin, so are the gold and silver mines of Colorado, so are the mines of the other Western states and territories. The evidences of aqueous formation are—the crystalline structures of the gangue and metals, the vertical cleavage of the gangue, the presence of cavities filled with crystals, or with metallic or other crystals attached to the walls of such cavities, the crystalline structure of the ore itself, as in galena and other sulphures.

The filling of the vein by aqueous solution may have extended over a vast period of time—indeed, in most instances such would appear to have been the case. The mode of such filling might have varied under different conditions, but in nearly every instance the theory of infiltration is the one which appears to most nearly supply all necessary conditions. This theory supposes veins to be formed in already existing fissures by infiltration of water from the surrounding wall rock at great depth, either in the form of vapour or as an aqueous solution, and bearing the metals in solution to be deposited in the vein. This theory embraces that of sublimation, as if during the period of metamorphic change the lower sedimentary rocks were, so to say, sweated by heat and steam till nearly all their metals were extracted, and they themselves transformed into the semi-marbles and quartzites which we now find. The metals must have been deposited somewhere, and as it is in just such rocks we find the majority of mineral veins, the conclusion seems almost irresistible that this was the source of at least a large proportion of the ore deposits now in existence.

Where veins occur in the igneous rocks the same process again ensues, with only this difference—that the probable source of the metals is from vapours arising from the hearth of the igneous rocks below, as those rocks are too hard to be extensively acted upon by water alone. Thus we have in this great laboratory of Nature a continual change, constantly progressing towards more perfect forms of all matter, and when the placer miner picks up his pan of golden sand he only saves by water that which water once deposited, as a gold solution is deposited in the laboratory of the chemist, any organic substance almost being able to attract and precipitate the precious metal. Those vein fissures flowing little rivulets down the sides of the western mountains gave us the wonderful wealth of California in early days, while the veins themselves will yield a richer harvest to future generations.

EXCHEQUER (Gold and Silver).—The latest official advices state that the north drift is in 36 ft. from the cross-cut, with good ore in the face. The stopes at the 200 continue to look well; 46 car-loads of ore have been raised during the week. When the new engine has been erected the output will be increased, and deadwork well kept in advance. The furnaces and mill were expected to be running about Dec. 13. The Alpine Chronicle says:—"The ledge in the 400 ft level continues to look well." We have business in these shares at close market quotations.

I.X.L. (Gold and Silver).—The official advices state that the north drift in the 200 is in 301 ft., 13 ft. having been run during the week; it is a feature of importance that good ore is already appearing in the face, although yet some 80 ft. from the perpendicular of the bonanza gone down in the upper level. Some rich ore (about 2 tons) has been found in the drain tunnel. Sinking the engine-shaft 200 ft. will be forthwith commenced. The Alpine Chronicle says:—"We learn that a body of rich ore has been struck in the I.X.L. Mine, but cannot give any particulars in this issue. Manager Chalmers is prepared to let a contract to sink the shaft 200 ft." We have business in these shares at close market prices.

ASHETON AND WEST ASHETON.—During the last five months the sales from Asheton Mine have been 150 tons of lead and 45 tons of blende, aggregating 2247½, or at the rate of 30 tons of lead per fathom, exclusive of blende. The mine continues to open out well. The returns show a profit of 200%, irrespective of 100% worth of copper it is proposed to sell. From West Asheton most favourable information has been received since the meeting, the lode in the 60 now being worth 30% per fathom. This is the pioneer level towards the Tan-y-Bwlch Mine. Such a lode approaching a mine yielding profits of about 10,000% per annum must be accepted as at least a significant indication, especially when it is remembered the other points of operation are opening out in an equally satisfactory manner. It is worthy of remark that there is a large "vugh" in the bottom of the 60 end, where a large stream of water is flowing, draining other points; this shows the lode to be large and porous in advance of the present end. Returns have been commenced, 10 tons having been extracted from the 45 west, from which level sufficient ore can be returned to meet the cost of the mine. It is expected in the 80 the ore ground will be reached earlier than in the 60. The mine is provided with ample machinery, and also capital to fully develop the mine. We have business in these shares at the close market prices.

GENERAL MARKETS.—The absence of alarmist rumours from the East caused an advance in the early part of the week in most securities; this was confirmed by favourable advices from the Continental Bourses, where public feeling seems for the moment to have veered round to a less unfavourable estimate of the political situation. The better feeling was stimulated by Prince Bismarck's speech in the German Parliament. The only adverse movement in any stocks connected with the East was in Danubian, the two issues of which fell 4 and 3 respectively. An unauthenticated report that Roumania had joined Russia in her aggressive course was apparently the cause of this decline.

FOREIGN BONDS.—The prospect before long of dearer money makes those uneasy who have been going for a rise, and have stock locked up; some calling in by bankers has already taken place. The difference between being served by joint-stock or private banks, with a moderate margin and at moderate interest, and the necessity of having recourse to the Bank of England with interest payable in advance and more margin required, will tell a tale if money continues its upward course. It is not to be wondered at that many holding stock open for the rise are now inclined to close. Among the principal movements during the week have been the violent fluctuations in South American stock upon rumours of a revolution in Entre Rios. This sufficed to cause a heavy fall in these securities generally, in Argentine and Buenos Ayres particularly.

RAILWAYS.—The dull weather and the prospect of unfavourable traffic returns tell irresistibly on the course of prices. Deferred stocks have been heavy and out of favour, especially Great Northern. The tendency of speculators in this department is to go for a fall, more particularly in those securities which have been pushed up of

late. With increased preferential charges, &c., it must be of necessity a rare exception for any company to be able to pay more dividend than last year, yet in two or three cases calculations have been based on the probability of this, and time only will prove their over sanguineness.

MISCELLANEOUS.—Less distrust is felt in the English funds than any other section, although several are engaged in a speculation for a decline. Business generally has been marked by an absence of purchasers for investment.

OUR COMMERCE IN METALS FOR THE PAST ELEVEN MONTHS.

Eleven months of the year 1876 have transpired, and there is no likelihood that the remaining portion of it will materially alter the character of the year's transactions in the metal markets or in mining for metals. Coal mines are sure to be more active, especially as the export to France increases, and the rigour of the latter weeks of December will necessitate a larger demand for house coal, but the closing of the Baltic ports will check, at all events in that direction, demands for the superior metals, and the season for home building operations in the United Kingdom and France is over, a review of the metal trade is, therefore, useful and opportune just now. We will notice in the first instance the statistics of the returns, and then make such remarks as they suggest. As lead mining is in the ascendant, and investors are turning their attention in that direction, we will first notice our commerce in that metal, although not so valuable as tin and copper in the market. The imports of lead for the 11 months is valued at 1,641,625½. Last year the imports of lead ore were 11,916 tons of pig; sheet, 79,825 tons; and of manufactured, 347 tons. The value of these imports was nearly 2,000,000. No imported lead was exported. The exports of British lead were in quantity 33,459 tons, and in value 754,007½, during so far in 1876. In 1875 the export of pig-lead was 24,271 tons, and rolled sheet piping and tubing 11,127 tons, of the value of a little over 750,000.

As copper has been more largely dealt in than tin we will next in order present its statistics. In the 11 months of this year the imports of copper were—ore to the value of \$62,831½, nearly 200,000, more than in the corresponding period of last year. Regular, including precipitate, 956,557½; a slight decline from the same space of time last year, when the value was a million and a quarter. Unwrought or part wrought 2,840,934½, compared with over 3,000,000, last year. The exports of copper imported were considerable, being of the value of 1,272,780. During the corresponding 11 months of 1875 the value was 1,159,721½; a heavy falling off from 1874. The exports of British copper did not alter very materially from previous years, but there has been a noticeable decline. The total value of the exports of British copper this year has been 2,636,395½. Last year in the same time it was 2,971,910½, and the year before 2,933,986. The decline has been proportionate in every department of the trade. Unwrought in ingots, cakes, or slabs, was this year exported to the value of 893,470½, against about 30,000 more last year. Wrought or manufactured this year, 934,551½; last year in the same space of time considerably over 1,000,000. Sheathing or yellow metal 862,408½, which in the corresponding period last year was exported to the value of 991,291.

Tin was imported in quantity to the extent of 291,000 cwts., of the value of 1,098,000. Of the tin thus imported nearly 103,000 cwts. was "re-exported," the value having been 390,000. During the first eleven months of last year the imports were 300,000, more than in this year, a circumstance which does not bear out the oft-repeated complaint that our markets are glutted with foreign tin to the ruin of British mines. Of the tin we imported in the corresponding 11 months of last year 30,000, worth less than this year, so that we are importing less tin from the Straits and Australia, and consuming less, and exporting more of what we do import, a fact which will answer many lubrications respecting the tin trade on the part of some of the Journal's correspondents. The production of British zinc—or, as its commercial name is, spelter—in all parts of Great Britain is chiefly in the form of sulphate of zinc. The quantities exported were 105,149 cwts., and the price was 122,007½, a slight increase upon last year, and a considerable augmentation upon the year before. The consumption of this metal greatly increases upon the Continent, but only a moderately increasing demand is made for it from this country, the supplies for France, Belgium, and Germany, where the consumption is greatest, being drawn from Prussian Silesia.

The imports of zinc were valued at 603,042½, chiefly—indeed, almost entirely—from Poland. The increase upon last year is 50 per cent., and the augmentation is likely to go on in an enlarged ratio, as the use of zinc for building purposes is becoming very extensive in England, especially in London; the metropolitan architects and builders have a *furor* for employing zinc in modern structures, as a walk along Cheapside or other great London thoroughfares will show the observer. There were no "re-exports" of foreign zinc. Quicksilver not being a product of the United Kingdom all we use is imported, the quantity obtained from abroad during the 11 months was 2,700,000 lbs., and the purchase-money 358,000. Of this we exported again 1,827,221 lbs., at a charge of 222,451½. We are unable to say from what cause, but our commerce in this metal declines. We export less and less to the colonies, and to other countries that have for long been our customers, finding it more convenient to purchase it here in return cargoes than to send for it to Spain. Our import of quicksilver for our own consumption falls off year by year; we took little more this year than half what we did two years ago, and not very much more than half what we imported last year.

Reviewing our imports, it does not appear that any country supplies us with the metals which we require to a greater extent than usual, and that no new sources of foreign supply have lately to any noticeable extent been opened up. "The re-export trade," as it is curiously called, goes on most encouragingly; we are selling to others at a profit more and more of our imports. Our exports of British tin have been declining for some years, and this appears to have been the case with all our customers except France, which imports fine tin-plates for artistic purposes. Lead, always steady, shows little change. The most remarkable feature in the trade in this metal is the revival in the demand for the United States, which, as compared with last year, had multiplied sevenfold after a long and severe decline. There is also an increase in the copper exports to America, which had almost become extinct, but with Russia they have seriously fallen off. On the whole, there is no department of British trade which bears so favourable a review as her commerce in metals.

GOLD MINING IN CHINA.—Mr. Adkins, the British Consul at Newchwang, states in his report this year that there has been much trouble of late caused by gold miners in the northern portion of the province, the Chinese finding difficulty in suppressing gold mining, owing very likely to many of the miners being from the territory of their powerful neighbour. The district of Kirin is very rich in gold; and the Consul gives an account of the valley of Chia Ti Kou, some 30 miles long, in which there are rich diggings about five or six days' journey east by south from Kirin and Newchwang. The veins of quartz in the hill side are very numerous. The quartz when dug is roasted, then crushed, and then washed on a cradle or slip, and so rude and imperfect is the operation that it usually pays to wash the quartz two or three times. The quantity of gold found in a ton of quartz varies; but a Chinese miner, who showed the Consul a slab of quartz brought from these diggings, assured him that less than \$230 worth of gold per ton is considered a poor yield. The miners in this locality are said to be a lawless set, and to have a very peculiar social organisation. It appears that a few years ago a formidable band of brigands infesting the Kirin province was put down by a levy of hunters and foresters under the leadership of a man named Han, and for this service the Government gave him an honorary button and permission to get gold in the mountain district lying to the east of Kirin. He pays an annual tribute of 20,000 taels and governs absolutely within the limits of his concession, and no official writ runs there without his permission. He has an armed following, and a number of miners and workmen in his pay. Those who are

not in his employ pay a royalty for permission to mine. The community under his rule are said to number about a thousand, and are principally Chinese, but a number of Koreans have recently found their way into the territory, and are working with considerable success. The Consul hears that little of the precious metal abides with the working digger, who is beset by the usual temptations to spend and squander.

THE BALLOT-TONTINE SYSTEM.

In fulfilment of the promise made in last week's Journal, an outline of the proposed ballot-tontine system of managing joint-stock companies will now be given. That the general introduction of the principle of limited liability for the shareholders in public companies (for it should be remembered that the same privilege had long been enjoyed by the old chartered companies, so the principle was by no means new when the Act of 1855 was passed) gave an enormous and very gratifying impetus to the development of industry is beyond question, and it is equally clear that the heavy losses and bitter disappointment which capitalists have suffered in connection with joint-stock concerns are due to an inherent defect in the principle of limited liability, but to abuses which have become by far too general in the organisation of the companies which have adopted it. The result, however, has proved equally prejudicial to commercial progress, since for some time past it has been virtually impossible to secure the direct assistance of the investing public in raising the capital necessary for carrying out any undertaking, however legitimate or promising, the consequence being that promoters and vendors have been induced to resort to practices which, though sometimes successful, have caused the public to lose all confidence in companies generally as a source of investment for reserve capital. Nor is this surprising, for in undertakings formed upon the prevailing system the investing public must in the natural order of things inevitably lose their money. The invitation of subscriptions from the general public is now in most cases a mere subterfuge, the success or failure of a company projected depending not upon the support it receives from the public, but upon the completeness of the vendors' and promoters' organisation arrangements.

The process is now very generally understood. A few acute and often needy speculators secure a written contract from the original vendor that he will sell to them a given property at a fixed price, and then at once proceed to find a suitable promoter. The promoter may sometimes be sufficiently wealthy to act on his own behalf alone, but this is the exceptional case. In most instances he is virtually the partner or servant of a smaller or larger number of shareholders or jobbers, who are ever ready to become members of a syndicate for floating any concern, however ephemeral, provided only it have features likely to prove temporarily acceptable to their clients. The practice of "syndicating" public companies has beyond question proved more disastrous to the bona fide investor than any other, and until it is entirely abandoned a healthy tone of business cannot reasonably be hoped for. The members of the syndicate agree to subscribe for such a number of the shares in the company to be launched as will ensure its floating, at the same time entering into a compact between themselves that they will not sell to the public under a certain premium. How, then, is it possible that the public can escape loss under such conditions? The company is, for example, formed with a nominal capital of 100,000*l.*, in 1*l.* shares, to purchase a property which by judicious management would yield 5 per cent. profit, but the syndicate having determined not to sell any shares under 2*l.* it follows that even if the full 5 per cent. be realised they will obtain but 2*l.* per cent. upon their investment. But this is not the sole evil, for the syndicate are enabled to, and in practice do, fix the price which the company shall be charged for the property, ratify the purchase as original shareholders, and distribute the difference between the amount which the original vendor receives and the amount which the company pays amongst themselves. In one case which came before the public the original vendor received 1400*l.*, and the company was charged 24,000*l.*, and this is by no means an exception, so that there was more than 22,000*l.* to distribute amongst the syndicate; and assuming that at the real purchase price the investment would have returned 50 per cent. profit, the public purchasing of the syndicate could under no circumstances get more than 3 per cent. upon their investment.

It is to remedy this state of affairs that the Ballot Tontine system, developed by Messrs. Seymour and Smith, of Queen Victoria-street, is proposed. They maintain that if advances in commerce are to continue to be made beyond the restricted limits of private capitalists, limited liability and other incorporated companies are the only institutions capable of accomplishing these ends; yet, to satisfy public opinion, and for the safety of investors, some amendment in the present system of management and organisation of companies is now essential. They state very truly that much initial loss accrues to companies from the present loose system of "promotion" charges. Directors are either wilfully or actually ignorant of the fair value of the properties they buy, in either of which positions they are quite unfitted to launch any company or carry on its business successfully. Before, therefore, the subscribed capital of any company is disbursed some power should be granted to the shareholders collectively, and, it ought to be added, to those shareholders unconnected with the vendors and promoters, to investigate the actions of directors prior to confirmation of promoters' contracts. And if upon investigation directors are proved to be promoters' nominees, and, therefore, unworthy of confidence, shareholders ought to be able either to reject the contracts or expel the directors. At present, however, this is quite beyond the powers of shareholders, and operates most prejudicially against the bona fide money interests of investors in company shares. When a company is "promoted," whether with bona fide intent or not, speculative dealers buy and sell its shares with great spirit before allotment. This has an inevitable result of sending the shares to a premium price, at which value the bona fide public investor is "permitted to obtain an interest in the company." It is impossible that a premium price can be genuine which is forced by speculative purchases on the Stock Exchange. But the public do not yet seem alive to this fact, although the evidence laid before the Foreign Loans Committee must satisfy all on the point. So manifestly and seriously misleading, if not fraudulent, is this practice that it ought to be prohibited, if possible, or at least rendered nugatory.

It is claimed that the whole defects in the present system of management of limited liability and other companies have been carefully considered in the preparation of the ballot-tontine system, and a remedy for them is thereby believed to be instituted. Safety of investment for reserve capital has been made the special subject of consideration before offering the system to the public. A fair and impartial consideration of its provisions must prove its value as a safe and restrictive system of company formation and management. Many persons desire the passing of the Act proposed in last session of Parliament as an amendment of the Limited Liability Acts, 1862 and 1867, and, if passed, it will make the adoption of this system almost compulsory, the provisions of each being entirely in harmony. Though framed earlier than the proposed Act, the ballot-tontine system has the advantage of wholly anticipating its provisions, and embodying others more restrictive and complete for the future prevention of the formation of speculative or sham companies.

The great recommendation of the ballot-tontine system appears to be that the appointment of the company's officers is to a great extent taken out of the control of the vendors and promoters, although if these can show that the directors they have temporarily nominated are worthy of confidence the bona fide investors have the opportunity of making the appointment permanent. In a ballot-tontine company's prospectus an estimate of the net annual profits is given, and of these two-thirds are appropriated to the payment of the fixed annual dividend on the capital subscribed, the remaining one-third being reserved for redemption of capital. Every share is issued in the allottee's name, and gives right to a numbered scrip, which is subsequently exchanged for either a proprietary or a redemption bond. No scrip is issued except in exchange for cash to the amount of its full nominal value; no ballot draw is permitted in respect of undelivered scrip, and payments on account of scrip

undelivered at date of ballot or at a fixed previous date are forfeited; undelivered scrip is sold or withdrawn absolutely from issue prior to the ballot draw (unless this is done the system offers no protection); the place, date, and hour of ballot is fixed by the prospectus of each company; the ballot is conducted in public, in presence of a notary, by persons not interested in the company on affidavit sworn to that effect; all numbers used in the ballot draw run consecutively from one upwards—a scrip number is drawn from one ballot-box, and simultaneously a bond number from another; the bond is at once registered in the company's books as belonging to the owner of the scrip number drawn, and the process is continued until the ballot-boxes are exhausted. Immediately after the ballot the proprietary bondholders meet and elect permanent directors, in room of the provisional directors, who then vacate office, but are eligible for election to the permanent board.

The permanent board thus appointed becomes bona fide representatives of those who have invested their money, and collusion between them and the vendors or promoters is in the highest degree improbable. The permanent board ratifies, or refuses to ratify, the contracts and agreements made on behalf of the company by the provisional directors. If ratified, they then assume the management of the company, and issue the bonds as drawn by the ballot in lieu, and on delivery by the owners of scrip. If the contracts of the provisional directors are not ratified and no satisfactory arrangement is possible between the contractors and the company, the permanent directors return within one month from the date of the ballot the whole amount of the capital subscribed, less a fair percentage to cover legitimate charges. Provisional directors receive remuneration for their services up to date of the ballot, but such remuneration is determined by the proprietary bondholders alone. The bond number drawn from the ballot-box determines whether the bond to be issued in exchange for the corresponding scrip number shall be ordinary (that is, redeemable) or proprietary, and if the former, also determines when it shall be paid off (the premium on redemption being fixed in the prospectus), the redemption being according to the number—the highest first. Bonds are redeemed periodically, as circumstances allow, the fixed dividend stated in the prospectus being first provided for. The ordinary and the proprietary bonds carry the same fixed rate of interest during the currency of the tontine. No more than one proprietary bond is issued to one and the same shareholder in any one company, and in the event of a second proprietary bond number being drawn for any shareholder, it is returned to the ballot-boxes. After the ballot the registered shareholders are the proprietary bondholders only, and the ordinary bondholders rank as debenture stockholders. The ordinary members entitled to vote at business meetings of the company are the proprietary bondholders only. The balance-sheet of the company charges—first, in detail, the whole working expenses of the company; second, the sum necessary to meet the fixed dividend on all bonds, whether proprietary or ordinary; and, lastly, assign the surplus, if any, for immediate redemption of any number of ordinary bonds at the premium prices stated in the prospectus. A bonus of the estimated rate of redemption charge is added as premium price due in respect of each periodical redemption of capital.

Such is an outline of the ballot-tontine system, and one more effectual for the protection of the investor it is difficult to imagine, but whether a sufficient number of the public will comprehend the operation of the principle to ensure a company adopting it such an amount of support as will carry it through is another question. It is much to be hoped that they may, as it would quickly open a ready channel for the raising of the necessary funds for developing any commercial or industrial enterprise worthy of support, whilst it could not fail to be extremely satisfactory to those by whom the funds are provided, for, as it is very truly explained, the ballot-tontine system secures that capital professed to be subscribed by the public is paid for in full, so that companies cannot be set in motion with fictitious paper capital, or by vendors and promoters entering into a secret compact, whilst the powers of directors are confined more within the limits of trusteeship; the system vests the ultimate possession of the corporate properties, at the expiration of the tontine, in the holders of specified numbers of bonds, determined prior to, and drawn by, the ballot. These bonds are issued to the applicant only, and are negotiable by deed of transfer. No other than the applicant or his transferees, as recorded in the books of the company, can obtain possession of them. It offers, moreover, to limited and unlimited corporations all the advantages of the old proprietary tontine system, without its objectionable features. The tontine is terminable in a given period, and does not depend on the uncertainty of life. The capital invested by individuals is returnable in full, and at a fair premium price, and is not sunk and lost by the death of the investor. In determination of proprietorship by ballot there is absolute security against foul play, as all proprietary bondholders have an equal interest in the properties under their control, and the decrease of one or more of their number does not increase an individual interest.

THE TIN TRADE.

Although a reduction of 3*l.* was made in the standard for tin ores on Monday, the prospects of the tin trade are not unfavourable, the stocks on Dec. 1 being but 1363 tons larger than at the corresponding date of last year, whilst the deliveries for the first ten months have been 1143 tons greater, showing that if the stocks are augmenting the consumption is increasing also. Messrs. French and Smith, reporting on the position of the trade to the end of November, state that tin was largely dealt in, and a rise of 5*l.* per ton realised during the past month. On the 29th ult. the Dutch Trading Company held their last sale of this year, when 29,611 slabs of Banca realised average price of 46*l.* 6*l.*, equal to about 79*l.* laid down here. At the same time 3510 slabs of Billiton sold at 45*l.* 8*l.*, equal to about 78*l.* laid down here. These prices were considered satisfactory, and seemed confirmatory of the late rise here, but at the same time telegrams advising considerable shipments of Australian came to hand, and buyers withdrew, in the expectation of buying at lower rates. Large parcels have since changed hands at 77*l.* down to 75*l.* Straits is comparatively scarce, and difficult to buy at quotations. There is but little change in the statistical position. The total stocks of foreign tin in London and Holland and afloat for Europe on Dec. 1 was 14,368 tons, against 13,005 tons at the same date of 1875, and 11,208 tons on Dec. 1, 1874. The price of Straits tin was 77*l.* on Dec. 1 against 82*l.* and 93*l.* at the corresponding date of 1875 and 1874 respectively. The quantity of Australian afloat on Dec. 1 was 1600 tons, against 1450 tons the same time last year, and the total imports of Australian was 6940 tons in the first ten months of this year, against 6514 tons in the same time last year. The supply of foreign tin is thought by Messrs. Sargent and Son to show a steady, though moderate, diminution, and their view is to some extent confirmed since taking the ten months 133 tons less were imported this year than last—an amount equal to nearly three days' delivery at the November rate) the aggregate imports having been 21,449 tons in 1876 against 21,587 tons in 1875. The same firm has tabulated some calculations which have convinced them not only that the supply is diminishing, but that the percentage of diminution is much more considerable during the past three months than at any other time throughout the whole year. They believe that the results of the next three months will be still more striking, and that with a fairly improving trade the stocks will show a steady falling off during the next three or four months. It is to be noted that although the European deliveries for 1876 have exceeded those of 1875 by over 1100 tons, the quantity that America has taken is fully 800 tons short of that taken in 1875, from which they conclude that the States must of necessity be eager buyers in the Straits for some time to come, as the American trade is undoubtedly better, and stocks there are very small.

With regard to Straits tin, Messrs. Sargent and Son report that the amount of business has been moderate, because holders have been very stiff in their ideas of value. The price gradually advanced to 79*l.*, then receded again to 78*l.*, after which it again touched 79*l.*, but it closes quietly at 76*l.* 10*l.* There has been very little difference in the prices of spot and forward, The importations for the month have been small, only about 271 tons, and even still less is expected

to come in during December. The shipments from the Straits are estimated at 480 tons. A very large business has been done in Australia. The importers being able to realise a fair profit have been ready sellers, and consumers finding this description equal to Straits, and generally 1*l.* to 2*l.* cheaper, are getting to use it by preference. The fluctuations have been similar to those in Straits tin, and the market closes at 75*l.* 10*l.* The importations have been large, comprising 886 tons, whilst the shipments are estimated at 800 tons. This quantity is not excessive, considering that September and October were very small. The markets in Holland have been fairly active, and at one time were rather excited. The Banca sale of 29,900 slabs, held on the 29th ult., realised 46*l.* 60, equal to 79*l.* delivered here, and the 3000 slabs Billiton sold at the same time fetched 45*l.* 87. Since the auction prices have slightly receded. The English smelters have been holding for very stiff prices, without, however, selling very freely. Prices have been somewhat irregular, as a few parcels of second-hand have been in the market. The deliveries during November were 241 tons Banca, 186 tons Billiton from Holland, and 1060 tons Straits, &c., from London (including 52 tons overside to the States), being 1487 tons, less 15 tons Billiton and Banca, sent here, making a total net of 1472 tons. The deliveries for the first 11 months of this year are 19,312 tons (of which 1582 tons overside to the States), against 18,167 tons (of which 929 tons overside to the States) in the same 11 months of 1875.

THE TIN TRADE.

	Oct. 31, 1876.	Nov. 30, 1876.	Nov. 30, 1875.	Nov. 30, 1874.
Straits and Australian, spot ..Tons	7,650	7,664	5,691	1874.
Ditto, landing	100	867	259	2,698
Straits afloat	350*	650*	700	1,635
Australian afloat	1,950	1,640	1,725	709
Banca, on warrants	1,321	1,328	410	815
Ditto, Trading Co.'s hands	637	386	2,750	3,700
Ditto, afloat (by sailing vessel only, not adding shipment per steamer)	141	479	322	260
Billiton, spot	841	977	900	1,025
Ditto, afloat	1,500	1,300	800	375
Australian tin in Holland	765	765	—	—
Total	15,215	15,456	13,557	11,208
Deliveries during the month in London	1,020	1,028	858	746
Ditto, Holland	894	438	368	350
Total	1,914	1,466	1,214	1,096
Prices of Straits	74 <i>l.</i> 10	78 <i>l.</i> 10	82 <i>l.</i> 10	93 <i>l.</i> 10
Shipments from Straits, in November	480*	—	—	—
Ditto, Australia, ditto	800*	—	—	—
During 12 months ending Nov. 30, 1876.	6,174	—	—	—
Shipments from Australia to London	7,036	—	—	—
Deliveries of foreign tin in London	19,331	—	—	—
* The cable to the East being restored the exact figures are here given. † These figures do not include shipments to America, via London. ‡ Excluding stock transferred to Amsterdam warehouse.				

London, Dec. 1. A. STRAUSS AND CO.

THE COPPER TRADE.

The highest point in Chili copper was reached early in November, when 78*l.* 10*l.* and 79*l.* was paid for "spot" and arrival. A considerable quantity of ore and regulus was taken by the smelters, and a good line of Chili copper both by consumers and speculators, and for a time there was an apparent strong feeling in the market. The English smelters advanced their prices all round, which helped to stimulate the demand for a time, but this firmness towards the middle of the month gave way, and as demand slackened prices became weaker, the fall in Chili being equal to 3*l.* per ton at the close of the month. Australian sorts have been scarce, and their price better maintained than other descriptions of copper. The stock of this description is smaller now than it has been since 1871, so that the public sales of Wallaroo would appear to have stimulated the demand for this class of copper if they have not yet improved the price. In manufactured, especially for India, there has not been so much doing, but for yellow metal the demand has increased.

The imports of copper into England for the first ten months of the following years were—1872, 67,903 tons; 1873, 58,370 tons; 1874, 61,574 tons; 1875, 67,267 tons; 1876, 64,915 tons. The exports for the same periods were—1872, 31,293 tons; 1873, 45,568 tons; 1874, 42,825 tons; 1875, 41,048 tons; 1876, 42,777 tons. The position from Dec. 1, 1875, to Dec. 1, 1876, was as follows:—

	Price.	Stock on hand.	Advised by mail only.
1875—December 1	£ 81 0 0	.....Tons	29,885
1876—January 1	81 10 0	.....Tons	29,885
February 1	81 0 0	.....Tons	29,885
March 1	81 0 0	.....Tons	29,885
April 1	81 0 0	.....Tons	29,885
May 1	81 0 0	.....Tons	29,885
June 1	81 0 0	.....Tons	29,885
July 1	81 0 0	.....Tons	29,885
August 1	81 0 0	.....Tons	29,885
September 1	81 0 0	.....Tons	29,885
October 1	81 0 0	.....Tons	29,885
November 1	81 0 0	.....Tons	29,885
December 1	81 0 0	.....Tons	29,885

And the comparative positions at the same date of the past four years with the present are as follows:—

	Price.	Stock on hand.	Advised by mail only.
1872—December 1	£ 85 0 0	.....Tons	38,754
1873—December 1	85 0 0	.....Tons	38,754
1874—December 1	85 0 0	.....Tons	38,754
1875—December 1	85 0 0	.....Tons	38,754
1876—December 1	85 0 0	.....Tons	38,754

The West Coast charters to Nov. 30 were 45,290 tons, against 44,000 tons in 1875; and the shipments to Sept. 30, 1876, were 38,175 tons, against 35,243 tons in 1875. Leadenhall-street, London, Dec. 7. HENRY ROGERS, SOHS, AND CO.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

During the past week the market has been again inactive. In shares of iron and coal concerns Lochore and Caplehead have improved 2*l.* 6*l.*, but Shotts have fallen 30*l.*, Monkland 9*l.* 6*l.*, Marbella 5*l.*, Benhar 2*l.* 6*l.*, Chillington 2*l.* 6*l.*, and Monkland (preference) 1*l.* 3*l.*. Ebbw Vale have relapsed 12*l.* 6*l.*, notwithstanding the confirmation of the resolutions affecting the capital passed at the previous meeting. A general meeting of the Rhymney Iron Company is to be held on the 20th inst., to authorise an increase of the capital. Richards and Co. offer at 95*l.*. Aldridge Colliery are at 35*l.*. Cannock and Huntington, par, sellers. Cardiff and Swansea, 34*l.* to 35*l.*. Chatterley Iron, 24*l.*. Consett, 18*l.*. Darlington, 35*l.* to 40*l.*; ditto Seven Per Cent. Debenture, 6*l.*. Sellers. Hamstead, 20*l.* 6*l.*, sellers. Ivy House, 50*l.* 6*l.*, buyers. John Ball and Sons, 75*l.* to 85*l.*. Mersey, 7*l.* 6*l.*. ditto Metal, 72*l.* 6*l.*, prem. Park Gate, 40*l.* 6*l.* to par. Pelsall, 8*l.* to 9*l.*. Sandwell Park, 24*l.*. Sheepbridge, 10*l.* 6*l.* to par. Skerrie Iron, 4*l.* 6*l.* to 7*l.*. Spon Lane, 6*l.* 6*l.* to 7*l.*. Cleeve, 9*l.* 6*l.* to 10*l.*. West Cannock, 5*l.* 6*l.*, sellers. West Cumberland, 11*l.* to 12*l.*. Whitwick, 75*l.*. Workington Malleable Iron, 14*l.* to 16*l.*. In shares of foreign copper concerns Tharls have declined 7*l.* 6*l.*, Pannicillo and Russia 5*l.* each, and Canadian Pyrites (new) 1*l.* 6*l.*, but ditto (old) paid are 1*l.* better, and Huntington 6*l.*. The usual dividend of 20*l.* per share has been declared by the Cape Company. New Quebec are at 70*l.* to 80*l.*; San Pedro, 10*l.* to 15*l.*; Yorke Peninsula (ordinary), 8*l.* 6*l.* and ditto 15 per cent. (preference), 21*l.* 3*l.*.

In shares of home mines prices are generally lower. Glasgow Carleton are 6*l.* lower. Tankerville have declined at 8*l.* to 8*l.*, notwithstanding a dividend of 5*l.* per share being declared, but even at this price, compared with Leadhills at 6*l.* to 7*l.*, which is thought by some will pay as well, there is room for an improvement in the latter. The West Goldolphin sale for this month, over 1000*l.*, is good. New Tylwyd and Pandora shares have also been required. Aberdunard are at 12*l.*; Bampfyde, 11*l.* to 12*l.*; Cargill, 10*l.*; Derwent, 8*l.* 6*l.*; Glenroy, 40*l.*; Glynn, 45*l.* to 50*l.*; Great Laxey, 20*l.* to 21*l.*; Great West Van, 5*l.* 6*l.*; buyers; Gunislake (Glitters), 45*l.* to 55*l.*; Killfret, 20*l.*; Marke Valley, 25*l.* to 30*l.*; North Laxey, 20*l.* 6*l.* to 15*l.*; Parya Mountain, 12*l.*; Penrhy, 25*l.*; Penrhytrall, 10*l.* 6*l.*; Roman Gravel, 13*l.* to 14*l.*; Rookhope, 15*l.* to 17*l.*; South Condurow, 7*l.* to 7*l.*; Van Consoils, 37*l.* 6*l.* to 40*l.*; West Tankerville, 32*l.* 6*l.*; Wheel Ury, 52*l.* 6*l.*. In shares of gold and silver mines there is little alteration. Australian mines are 3*l.* 6*l.* lower. The Richmond run this week is 353,000, being 32000 less than the previous week. The accounts from the various mines received during the week are generally more favourable than usual, and include Argentine, Blue Tent, Don Pedro, Eberhardt, Pestarena United, Port Phillip, Sweetland Creek, St. John del Rey, and United Mexican. Gold Run have been in demand at 9*l.* to 10*l.*, owing to the improved result for the coming season. Cedar Creek are at 10*l.* to 12*l.* 6*l.*. Chontales, 7*l.* 6*l.*. Don Pedro, 10*l.* to 12*l.*. Exchequer, 37*l.* 6*l.* to 42*l.* 6*l.*. Flagstaff, 15*l.* to 20*l.*. Frontino and Bolivia, 30*l.* to 32*l.* 6*l.*. I. X. L., 17*l.* 6*l.* to 20*l.*. Last Chance, 7*l.* 6*l.* to 12*l.* 6*l.*. New Rosario, 2*l.* 6*l.*. Pestarena United, 4*l.* 6*l.*. Port Phillip, 12*l.* to 13*l.*. St. John del Rey, 35*l.*. Teoma, 7*l.* 6*l.* to 10*l.*. Tolima, A, 20*l.*. In shares of oil concerns Oakbank have improved 1*l.* per share on both classes, but Dalmeny have fallen 15*l.*, Uphall, 6*l.*, and Young's Paraffin, 2*l.* 6*l.*. West Calder have been required, also Runcorn Soap and Alkali, at 55*l.* to 45*l.* 6*l.*. A dividend of 7*l.* 8*l.* per share is payable on Young's Paraffin shares on the 22nd inst. Shares of miscellaneous companies continue neglected. Bede Metal are at 5*l.* 6*l.*; Birmingham and Midland Counties Val de Travers, 25*l.*; British Agricultural Association (preference), 5*l.*; Hopkins, Gilkes, and Co., 8*l.* to 7*l.* 6*l.*; Langdale's Chemical, 92*l.* 6*l.*; Newcastle Chemical, 60*l.* 6*l.*; Palmer's Shipbuilding and Iron, 16*l.* 6*l.*; Patent Shaft and Axle, par; and Starbuck Wagon, 11*l.* to 11*l.* 6*l.*. Details of the several days' business follow:—

On Thursday last little business doing. Bampfyde, 10*l.* to 12*l.* 6*l.*. Benhar done at 9*l.* 6*l.*. Bolckow, Vaughan, A, 5*l.* to 5*l.* 6*l.*. Cardiff and Swansea, 35*l.*, buyers.

Carn Brea, 48 to 49. Dalmeny Oil, 94 to 95. Glyn, 45s. buyers. Huntington, 10s. to 12s. 6d. Leadhills, 4s. to 7s. 6d. Lechoore and Capledrae done at 6 1/2, closing 6 1/2. Monkland done at 7s. 6d. to 7s. 6d. Oxbank Oil done at 5s. 6d. to 6s. 6d. closing at these prices; new shares done at 15s. 6d. closing 15s. to 16s. Parys Mountain, 12s. 6d. buyers. Richmond, 9 1/2 to 9 3/4. Shotts Iron, 100 to 105. South Condor, 7 1/2 to 7 3/4. Tharsis done at 22 1/2 and 22 3/4, closing about 22 1/2. Uphall Oil done from 13s. to 13s. 9d., closing 13s. 7d. to 13s. 8d. 9d. York Peninsula (ordinary), 8s. sellers; 15 per cent. preference, 20s. to 22s. 6d. Young's Paraffin done from 1 1/2 to 1 3/4, closing 1 1/2 to 1 3/4.

On FRIDAY, market very dull. Aberdeen, 12s. sellers. Canadian Pyrites, 17s. to 20s. new shares done at 1s. Cardiff and Swansea, 33s. to 35s. Dalmeny Oil, 9 1/2 to 9 3/4. Killybreth, 22s. sellers. Lechoore and Capledrae done at 6 1/2, closing 6 1/2. Monkland done at 7s. 6d. to 7s. 6d. Oxbank Oil, 5s. 6d. to 6s. 6d. new shares, 14s. 6d. to 15s. 6d. Richmond done at 9 1/2, 12s. 6d. and 9 1/2, 11s. 3d. to 11s. 3d. to 9 1/2, 11s. 3d. to 9 1/2, 11s. 3d. Tankerville, 9 to 9 1/2. Tharsis done from 22 1/2 to 22, closing about 22. Uphall Oil done from 13 1/2 to 13, closing about 13. Van Consoles, 30s. buyers. Young's Paraffin, 15 1/2 to 15 3/4.

On SATURDAY little business doing. Benhar done at 9 1/2, 15s. and 9 1/2, 15s. 6d. Dalmeny Oil, 9 1/2 to 9 3/4. Glyn, 45s. to 47s. 6d. Great West Van, 5s. to 5s. 6d. Killybreth, 21s. 6d. sellers. Lechoore and Capledrae done at 6 1/2, closing 6 1/2. Monkland done at 6s. 6d. to 6s. 6d. Parys Mountain, 12s. to 13s. Port Phillip, 12s. to 13s. South Condor, 7 1/2, sellers. Tankerville, 9 to 9 1/2. Tharsis done from 22 1/2 to 21 1/2, closing 21 1/2 to 21 3/4. Uphall Oil done at 12 1/2, 17s. 6d., closing 12 1/2, 17s. 6d. to 12 1/2, 17s. 6d. West Tankerville, 30s. to 35s. Wheel Uny, 3 sellers. York Peninsula (ordinary), 7s. 6d., sellers; 15 per cent. preference, 17s. 6d. to 22s. 6d. Young's Paraffin done from 1 1/2, closing 1 1/2, 13s. 9d. to 15 1/2.

On MONDAY market dull. Australasian Mines, 8s. 9d., sellers. Benhar done at 9 1/2, 15s. to 9 1/2, 15s. Canadian Pyrites done at 17s. closing 17s. to 19s.; new shares, 1s. to 3s. Cardiff and Swansea, 34s. to 35s. Dalmeny Oil, 9 1/2 to 9 3/4. Ebbw Vale done at 11 1/2, closing 11 1/2 to 11 1/4. Glasgow Caradon done at 27s. 3d., closing 27s. to 27s. 6d. Gold Run, 8s. buyers. Killybreth, 21s. 3d., sellers. Lechoore and Capledrae, 6 to 6 1/2. Monkland, 6s. 6d. to 6s. 6d.; preference, 6 1/2 to 6 3/4. Nant-y-Glo and Blaith (preferred) done at 19 1/2. Oxbank Oil done at 5s. 6d. and 5s. 6d., closing 5s. 6d. to 5s. 6d. Roman Gravel, 13 1/2 to 14. Rookhope, 15s. to 17s. Tankerville, 9 to 9 1/2. Tharsis done from 21 1/2 to 21 1/4, closing 21 1/2 to 21 3/4. Uphall Oil done from 12 1/2 to 12 1/4, closing 12 1/2 to 12 1/4. West Tankerville, 32s. 6d., buyers. York Peninsula (ordinary), 8s. sellers. Young's Paraffin done from 1 1/2 to 1 1/4, closing about 1 1/2.

On TUESDAY market quiet. Bampfylde, 10s. to 12s. Benhar done at 9 1/2, closing 9 1/2 to 9 1/4. Exchequer, 37s. 6d. to 42s. 6d. Glasgow Caradon done at 26s. 6d., closing 26s. to 27s. Glyn, 45s. to 47s. 6d. Killybreth, 21s. 3d., sellers. Lechoore and Capledrae, 6 to 6 1/2. Oxbank Oil, 5s. 6d. to 6s. 6d., closing at these prices. Parys Mountain, 12s. to 13s. Port Phillip, 13s. sellers. Richmond done at 9 1/2, closing 9 1/2 to 9 3/4. Rookhope, 15s. to 17s. Shotts Iron, 100 to 104; South Condor, 7 1/2 to 7 3/4; Tankerville, 9 to 9 1/2. Tharsis done at 22 and 22 1/2, closing 22 1/2 to 22 3/4. Uphall Oil opened at 12 1/2, 17s. 6d., and was dealt in from 12 1/2, 17s. 6d. to 12 1/2, 17s. 6d., closing 12 1/2 to 12 1/4. West Cumberland, 11 to 12; Whitwick Colliery, 7s. 6d., sellers; Wheel Uny, 3 sellers. Young's Paraffin done from 1 1/2, 10s. to 15 1/2, then from 15 1/2, 10s. to 15 1/2, closing 15 1/2 to 15 3/4.

On WEDNESDAY market very quiet. Canadian Pyrites done at 17s., closing 17s. to 18s. Dalmeny Oil done at 9 1/2, Ebbw Vale done at 11 1/2, closing 11 1/2 to 11 1/4. Glasgow Caradon done at 27s., closing 26s. 6d. to 27s. 6d. Gold Run, 8s. 6d., buyers. Huntington, 11s. 6d. to 12s. 6d. Killybreth, 21s. 3d., sellers. Leadhills, 4s. to 7s. 6d. Lechoore and Capledrae, 6 to 6 1/2. Marbella, 6s. to 7s. Monkland done at 6s. 6d., closing 6s. 6d. to 6s. 6d. Oxbank Oil done at 5s. 6d., closing 5s. 6d. to 6s. 6d.; new shares done at 15s. Penrith, 10s. 6d., sellers. Richmond, 9 1/2 to 9 3/4. Rookhope, 15s. to 17s. Shotts Iron, 100 to 104. Tharsis done at 22 1/2 and 22, closing at these prices. Uphall Oil done from 13 1/2 to 12 1/2, 17s. 6d., closing about 12 1/2, 17s. 6d. York Peninsula (ordinary), 8s. sellers; 15 per cent. preference, 20s. to 22s. 6d. Young's Paraffin done at 1 1/2 and 1 1/4, closing at these prices.

J. GRANT MACLEAN, Stock and Share Broker.

Post Office Buildings, Stirling, Dec. 7.

FOREIGN MINES.

CAPE COPPER MINING COMPANY.—At a meeting of the directors of this company, held on Tuesday, a dividend of 20s. per share, free of income tax, was declared, payable on Dec. 23.

ST. JOHN DEL REY MINING COMPANY.—At the forthcoming meeting of shareholders the directors will declare a dividend of 20 per cent. for the half-year.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, Dec. 4: Produce, twelve days, second division of November, 14,250 oits.—562d.; yield, 6 oits per ton.

RICHMOND CONSOLIDATED.—Telegram: Week's run, 853,000; yield, 6 oits per ton. Nov. 11: There is no change in the 800 ft. drift since last week. The stop in back of the 800 has been suspended for a time. We have begun a slope from the winze between the 700 and 800 levels; the ore being worked on is of good quality. The 700 drift is being driven in a north-westerly direction on a level with a little ledge matter; it looks very promising; this drift is on the extension north westerly of the ore-bearing channel. The 600 drift will be communicated with the No. 1 winze sunk from the chamber in a few days; as soon as this is holed the drift will be pushed on towards the No. 2 winze, which is at a distance of 120 ft.; if the ground continues as it is at present, it will take about six weeks to make communication. The winze in bottom of the 400 is down 30 ft. We expect to hole to Pott's chamber in about a week or ten days. The stopes in the mine are looking well. We have started a drift from the rise about 40 feet above the Lizzie tunnel extension; it has been driven about 15 ft. in very fair ore.

—Smelting: All the furnaces are in full blast, and doing good work.

—R. Rickard, Nov. 13: The 600 drift is gone through the shale and into limestone towards the winze. We expect to hole every day. When this is holed we shall begin a slope from the winze 30 ft. above the 600 drift. We have made a level 7 ft. to the south-east, 30 ft. in it in good ore, and the end still in good ore. The 600 main drift is being pushed on in the same direction, and we have every reason to expect a large quantity of ore in this direction. This part of the mine is looking better than it has at any time. The 700 and 800 drifts are being driven in the same direction as the 600 drift. The ore body is making very close on the shale in this part of the mine. The winze in the bottom of the 400 is holed to Pott's Chamber. We are now hoisting waste from different parts of the mine and tipping in the chamber to strengthen the timbers.

—The rise and extension of the Lizzie tunnel taken from this place has been of very low grade, but now it is looking better.—Smelting: The five furnaces are in good working order, and smelting large quantities of ore.

EBERHARDT AND AURORE.—The directors have this day received a further shipment of five bars of silver, valued at present price about 1400.

—Telegram from Capt. Drake: Commenced run Nov. 2, suspended 7th to 20th for repairs, run steadily since, intend to continue run until close of season, November and December; one run milled November, 720 tons. Away, good; bullion, 7200; 1100 tons on mine dump. Total expenditure, 58000. Tunnel, 400 ft. day.—The directors have also received a letter stating that the rock-breaker had required repairing, which necessitated the delay referred to above.

Extracts of the latest advices from Capt. Drake.

Mine Cross Cut 7 east, 3rd level: I can report no special development, but feel sure of our position in this driving in reference to the footwall and ore channel; it is far more hopeful prospecting for ore than during our long and very perplexing search for the displaced wall, and the past week's driving has further strengthened our belief that we are on the true wall of the channel. We are not yet fairly through the spar, which at this point is exceedingly thick and fine grained. The machine is making good progress. In the last 4 or 50 ft. of our sinking the spar wall has been slightly bending to a less angle than its heretofore regular pitch, but we judge it is only a bend. From this fact, and also that our descent must be true and regular enough for the convenient running of the cars, we have been carrying a portion of the wall as a hanging wall—that is, leaving a portion of it east of us—and cross-cut the east from drift north, 850 ft. level (shown in my report) is to open another and nearer retreat for the men at time of blasting, and also to see what may be next east of the wall at this depth.

One in Old Workings: It must be admitted by all that with the discovery of no new bodies of ore since our reserves from last year have held out remarkably well. We still have good strips and seams of ore that we are at work upon, upon, and I shall follow them till we know what they may lead to; but present the ore surface exposed for convenient breaking is so much less than during the summer, I shall very soon reduce our mining force. Owing to disadvantages of position where the ore has of late been obtained, it has taken a larger number of men than usual in proportion to the amount of ore mined. Breaking at present about 100 tons per week, and shipping same to mill.

Mill: We did not stop to make a thorough cleanup for the October run, but closed the run on the 2nd inst. from which point of closing the November run commenced without stopping the mill. Balance of October bullion will be shipped this week. Since my last we have encountered something of a breakdown with the rock breaker, and this machine being an important one in our working—all the ore passing through it in preparation for the battery—we were compelled to shut down the mill on the night of the 6th inst. until I can obtain a duplicate of the disordered part from the foundry. I have telegraphed for the same, and expect it here in a day or two. In the meantime other repairs are being attended to.

Tunnel: During the week we lost ten hours time in changing the day shift men to night, and taking on a new set of men for day work. Altogether, we did not make nearly so good weekly headway as we expect to show very soon. Every week's experience improves the men in working the new drills. I am favourably impressed with the general working of the machines.

SWEETLAND CREEK.—Telegram from Mr. G. D. McLean: The gross returns are 814,000; the profit is 230,000. I send you a remittance of \$3000.

CONDOS OF CHILI.—Telegram from Chili, dated Nov. 28: 55 tons of raw ore shipped per Galea (due in Liverpool on Jan. 5). Estimated value 200 per ton: 120 tons of ore will be shipped with a fortnight. 325 tons of ore between the mines and Santiago. Have hired 450 mules. Troop doing well.

—James Seemore, Oct. 21: Insulin Mine: Further falls of snow have impeded surface operations. I am led to think that now there will be more settled weather, and more satisfactory results obtained. There is no lack of ore, both in and out of the mine, and as the weather becomes milder I shall be able to obtain more mules, and make shipments of large quantities of rich ore. The ore already brought to Santiago *en route* for shipment at Valparaiso are of very good quality, the best giving a produce of 40 per cent. lead and 130 oits. silver to the ton.—Batters: Good progress is being made in rising this shaft to open it to surface; there are only about 10 metres more to hole. Immediately that it is done it will be squared to bottom, road for drawing by horses fixed, and the sinking pushed on to the bottom.

—Dawson's: This shaft is being sunk with all the power we can at present devote to it. The hole in the bottom is 1 1/2 metre (say 4 ft.) wide, and yields 1000. worth of ore per fathom.—Deep Adit: We have resumed the driving of this important level, and shall as soon as possible put in a tram-road to bring out the stuff, which hitherto has been done on men's backs.

ARGENTINE COMPANY.—Capt. Coward, Oct. 24: The underlie shaft from Monte Plata (Piquet) is sinking very satisfactorily, having got out of the old men's workings, and being on ground requiring very little timber. The rock in the rise coming up against it continues hard, which makes progress rather slow, but I hope with good luck that we shall effect a communication by the beginning of next month.—North and South Pique: The 44 north is poor, but promising, and at any moment a discovery may be made before reaching the Cano Largo, where there are thousands of tons of rich ore ready to be taken away.

The 44 south has a very kindly appearance, and appears to be gradually draining the water from the Fontella, and as soon as practicable I shall clean it up, and make it available for the ore sold to there. Rich it must be, or else the native would not have had it down as far as they have, and made so many attempts to drain the water. Or, treated, &c. The water has been treating this month has been principally ore broken from the level left by the native workers, and, therefore, not so good as what was treated last month, which came principally from the bottom of the Pique. We shall be unable to break any more in the bottom of the Pique before fixing pitwork to sink below to work by about the end of this month or the beginning of next. The masons have just begun building up masonry for another baffle, and in about a week's time I hope to have it to work. Our great want at present is power for thoroughly calcining the ore, it being next to impossible to leave the ore thoroughly prepared in ovens worked by manual labour by natives. Let us have an Oxland's calciner, and get erected all the arrastres we have, and pitwork fixed to sink in the bottom of Pique, so as to have original ore and plenty of water, and I am certain that all our troubles and disappointments will be to an end.

Telegram, dated San Juan, Nov. 28: Pique holed.

I. X. L. (Gold and Silver).—Clerk, Lewis Chalmers, Nov. 13: The north drift on the 200 ft. level is in 30 1/2 ft. north 20° west, 13 ft. being a cross cut, and good ore appearing in the face. I found some good ore in the drain tunnel—about 2 tons. I have advertised for contracts to sink the engine-shaft 200 ft. My present engine would sink the 200 ft., but having but one drum I could not do any other work. The mill ought to be finished on Dec. 26 next.

EXCHEQUER.—Lewis Chalmers, Nov. 13: The north drift at the 400 is in 30 ft. from the cross-cut; some good ore in the drift. At the 300 I have discontinued driving to make room for stoping. At the 200 both stopes are looking well. We raised 45 car loads of ore during the week. When our new engine is in we shall be able to raise more, and keep deep work ahead at same time. I am covering the ore dump. At the mill the central wing is all framed, and we shall raise to-morrow. This done I shall set up my battery, which had to be postponed until this part of the building is covered in. This will take three weeks yet. In four weeks I may be able to commence running. I am busy laying in winter supplies of meal, mill, and boarding house. Every day is precious at this season.

NEW ZEALAND KAPANGA (Gold).—James Thomas, Oct. 21: Since reporting last month I discontinued for the present driving north and south on the course of the lode. I put the men to stop away a small block of ground left by the late company under the No. 5 level in the bottom and south of the old winze. This piece of ground was 8 fms. long and 10 ft. high; the lode averaged 2 ft. wide, occasionally producing some very rich gold quartz specimens, and the general lode stuff, where visible gold could not be detected, has yielded by crushing 10 dwts. per ton, proving the lode to be highly auriferous throughout within this belt of gold-bearing ground. Since the lode was sunk, and after the mine was drained and secured, by the help of six miners I have stoped away the ground above mentioned, from which I have crushed 30 tons of stuff and 120 lbs. of good specimens, yielding 119 ozs. of gold, or nearly 4 ozs. per ton. I have proved by the above yield the nature of the lode going down under the No. 5 level, and wish as soon as possible to continue sinking the winze, when good ground north and south will be available for stoping immediately. I have in my former letters stated the urgent necessity of sinking the winze and opening 10 fms. under the No. 5 level on this rich run of good stuff with all dispatch. We have found a rich lode in the bottom of the mine, and the success we have met with so soon is wonderful, and only proves what may be expected when the ground is laid open for stoping.

LUSITANIAN.—Nov. 28: Pailhal: The lode in Taylor's engine-shaft, sinking below the 190, is 10 to 12 ft. wide; the north part for 4 ft. wide is of quartz and ore of saving value, and the south part is a soft sandy schist. In the 50 cross cut, north of Perez shaft, the ground is a hard gneiss. Winze No. 104, below the 170, is in 140 ft. in 1 1/2 ton ore per fathom, and the rise coming up from the 150 is also worth 1 ton ore per fathom. The lode in winze No. 103, below good east of River shaft, is 1 1/2 ft. wide, of soft quartz and schist, with stones of lead and cobalt. In rise No. 105, above the 90, the lode is 1 1/2 ft. wide, containing stones of copper ore mixed with cobalt. In the 190, west of Taylor's, the lode is about 2 ft. wide, composed of quartz, and at times stones of ore. In the 180 west the lode is 4 ft. wide, with a branch of ore worth 1 1/2 ton ore per fathom. The lode in the 180 east is 5 ft. wide, composed of quartz; the men are put to rise in the back of this level for ventilation. The lode in the 170 west is 4 ft. wide, of quartz and schist. In the 160 east of River shaft, the lode is 1 ft. wide, of quartz and schist, with stones of ore. In the 150, west of Taylor's and west of the slide, the lode is 15 in. wide, with a branch of ore worth 1 1/2 ton ore per fathom. East of River shaft, in the 50, the lode is 4 ft. wide, yielding stones of ore. In the 25 east the lode is more compact than it was, but still poor.—Carvahal: At the 60, west of the cross cut, south of incline shaft, the lode is very small; we have put the men to cut in north to see if there is more lode there. The north and south lode in the 30 is 6 in. wide, composed of country, quartz, and a little mundie.

PESTARENA (Gold).—The following are the returns for the month of November: From Val Toppe District: 243 ozs. 5 dwts. 5 grs., obtained from 475 metric tons of ore; yield per ton 10 dwts. 5 1/2 grs.; from Pestarena District, 121 ozs. 9 dwts. 12 grs., from 184 metric tons; yield per ton 13 dwts. 3 1/2 grs.; total from the two districts 364 ozs. 14 dwts. 20 grs. of gold, obtained from 659 metric tons of ore amalgamated.

PONTGIBAUD.—Dec. 1: Monthly Report: Roure: The sinking of the engine-shaft below the 125 metre level goes on regularly, and we hope to be down for the 150 metre level in about a month. The 100 cross cut, east of this shaft towards Virginia lode, has entered more favourable ground for progress; in the past month's driving we have cut several small veins, some of which produce stones of ore. The 80 metre level south is in unproductive ground. The rise in the same level north produces good stones of ore; we expected to have holed to the 20 winze before this, but the nature of the ground and want of air have prevented it hitherto. The 60 metre level north is in a soft lode, yielding barytes, but no silver-lead ore.

The winze under this level just over the 80 end south opens good ground, worth 1/2 ton of ore per current metre. We have set a rise in this level south which will open good ground. An intermediate level at the 40 and 50 south yields 1/2 ton of ore per current metre. The adit north, on eastern part of Virginia lode, yields 1/2 ton of ore per metre. The same level driving south of mill shaft, on the eastern part of the lode, yields some good ore stuff towards the foot, worth 1/2 ton of ore per current metre.

Micote: The adit north is unproductive. The intermediate level in the same direction has cut a quantity of water. We hope there is a hollow lode before us; if so we have a good chance of discovering ore—the present end is soft disordered ground, and a small south side has opened some pretty good ore. The 130 in the same direction yields 1/2 ton of ore per current metre. The cross cut east at this level is in very favourable ground. The 100 south is unproductive. The air shaft, sinking below the 60, is in favourable ground for progress. The cross cut east at this level has entered stiffer ground, consequently our progress is slower. The adit south is in favourable ground for driving. We have commenced sinking the new shaft from surface with good force, and shall push on this work with all possible speed.

Pranal: The sinking of St. George's shaft below the 90 metre level goes on favourably, and is a little saving work. The rise in the same level, north yields 1/2 ton of ore per current metre. The 70 north yields 1/2 ton of ore per current metre; the lode is very hard and sparse. The same level south yields 1/2 ton of ore per current metre. The 50 north yields a little saving work, and the 50 1/2 ton of ore per metre.—Surface: We have had a continuation of fine weather, so that our dressing operations have been carried on uninterruptedly. The samplings have amounted to 261 tons.

ALAMILLOS.—Nov. 29: In the 60, west of San Francisco shaft, the ground is hard, and the lode small. The lode in the 40, west of San Felipe shaft, is very promising, and yields large lumps of ore, worth 1/2 ton per fathom. The 40, west of the same shaft, continues without improvement. The 20, in the same direction, is opening paying ground, valued at 1/2 ton per fathom. The 25, west of Abercrombie's, is also worth 1/2 ton per fathom. In the 50, east of Magdalena cross-cut, the main slide is in the middle of the level. In the same level west the slide occupies the upper part of the level; below it there are good stones of ore. The lode in the 50, east of San Enrique shaft, is large, with good stones of ore. The cross-cut at the 100 has been extended beyond the point where we expected to find the lode, and the lode has been brought back to drive at the 80 and 90 level on the 1st part of the lode. In the upper part of the 85, west of San Adriano shaft, there are good stones of ore. The 60, east of San Victor shaft, is in hard ground, and the lode of no value. The lode in the same level west is large and promising, and yields 1/2 ton per fathom. The 30, east of San Jose shaft, is without change. A cross cut has been driven north at the 50, east of Crosby's, without finding any more lode. In the 50, east of Judd's shaft, the lode is large, and opening paying ground, worth 1/2 ton per fathom. The lode in the 70, west of this shaft, is small. The 50, east of Judd's cross cut, is in hard ground, and the lode is without change. In the 40, west of the same shaft, the lode is small, and present value is 1/2 ton per fathom. The lode in the 30, west of adit shaft, has become unproductive. The men are getting on very well with the sinking of Abercrombie's shaft below the 40. The lode in Sanchez' winze, below the 28, has improved in the past week to 1 1/2 ton per fathom. Placido's winze, below the 50, has passed through the slide, and reached the lode below it; it contains good stones of ore. Horna's winze, below to 50, is in hard ground. Depozo's winze, below the 50, does not contain ore sufficient to value. In Torre's winze, below the 45, the lode is large, and spotted with ore, worth 1/2 ton per fathom. The winze return was kept up very regularly in the past month, and the stopes are yielding the usual quantity of ore. The surface works are going on very regularly, and the machinery is in good working order. We estimate the raising for December at 200 tons.

FORTUNA.—Nov. 29: Canada Inco's: The 120, west of O'Shea's engine-shaft, is opening tribute ground, worth 1 1/2 ton per fathom. The lode in the 110, west of Judd's shaft, is compact and regular, and worth 1 ton per fathom. The 30, east of San Carlos shaft, is being driven to effect a communication. In the 40, west of Abercrombie's shaft, the lode is large, and produces 1/2 ton per fathom. The lode in the same level east yields 2 tons of ore per fathom. The 70, west of this shaft, has fallen off in value during the past few days; now valued at 1/2 ton per fathom. The lode in the same level east is regular and well defined, and worth 1/2 ton per fathom. In the 120, east of O'Shea's engine-shaft, the lode is strong, and contains spots of ore, but not enough to value. The 110, east of Addis's shaft, produces 1/2 ton of ore per fathom. The lode in the 90, east of the same shaft, is opening wide, composed of quartz, spotted with lead ore. In the 80, west of Kennedy's, the ground is hard and spare for driving. The lode in the 60, west of this shaft, is small and poor. No lode has been met with east of the cross cut at the 50. The 90, east of engine shaft, sinking below the 90, yields 1/2 ton of ore per fathom. Abercrombie's shaft, below the 40, is being sunk off the lode. Fair progress is being made in Addis's shaft below the 100, which is also being sunk off the lode. The same remark applies to Santo Tomas's shaft, sinking below the 70. In Serano's winze, below the 30, the lode is small and poor, and the ground hard. Geron's winze, below the 25, continues to open ground worth 1/2 ton per fathom. The lode in Leon's winze, below the 40 is very regular, and yields 1/2 ton per fathom. Los Salidos: The lode in the 130, west of Buenos Amigos engine-shaft, is small and unproductive. In the 120, west of this shaft, an improvement has taken place, the lode is now worth 1/2 ton per fathom. The 110, west of San Carlos, is poor. The lode in the 130, east of Buenos Amigos shaft, is regular, and carrying strings of lead ore. In the 130, west of Morris's shaft, the ground continues very hard, but is letting out more water. The lode in the same level east is large, and spotted with ore. The 120, east of Cox's shaft, is being driven in unproductive ground. The 110, east of San Pablo's shaft, is opening very valuable ground; worth 2 1/2 tons per fathom. In the 25, east of Saffield's, the lode has improved during the past few days to 1 ton per fathom. The lode in the 45, west of the shaft, is split into

small worthless branches. The 55, west of Palgrave's, contains spots of lead ore. The lode in the 65, west of Palgrave's, is disarranged by broken up ground. The same level east has fallen off in value in the past few days, but we expect it will improve shortly. The 55 east is opening good tribute ground, and worth 2 tons per fathom. In Rosa's, sinking below the 25, the lode has become unproductive. The lode in Quintana's winze below is small and poor. Victoria's winze below the 25, west of Saffield's, is being sunk for ventilation, and is opening good ground; worth 1 ton per fathom. Alfonso's winze below the 55, west of Palgrave's, is being sunk in advance of the 65; it is valued at 2 tons per fathom.

LANESTOSA.—Dec. 1: La Berta: In Guillermo's shaft we have just reached a lode dipping west, which seems small, but it contains a little lead and zinc ores. The ground has changed to hard siliceous rock. The lode at San Vicente shaft has narrowed to a division in stiff blue limestone. The adit level to San Vicente is being driven through hard ribs of limestone. The lode in La Cruz deep adit has increased to 3 ft. wide, with a congenial appearance, and producing occasionally stones of lead ore.—Asuncion: We are sinking in the bottom of the Cave level north to prove depth of the deposit. It looks well at present. A little ore is being got out from the tribute bargains in old mines.

LINARES.—Nov. 29: Pozo Ancho: Since last reported the lode in the 100, east of Warner's engine-shaft, has very much fallen off, and now worth only 1/2 ton per fathom. The lode in the same level west is large, containing good stones of ore. A great improvement has taken place in the 105, west of Peill's engine-shaft, being now worth 1 ton per fathom. The 90, west of Peill's, yields 1 1/2 ton per fathom. The 75, in the same direction, having been unproductive for some time, is suspended for the present. In the 65, west of the same shaft, the lode continues without improvement. The lode in the 55 is small, and of no value. The 105, east of Peill's, improved a short time since, but has again fallen off in value to 1/2 ton per fathom. The lode in the 90, east of San Francisco shaft, is regular, and opening paying ground, worth 1 ton per fathom. In the 75, driving in the same direction, the lode is small and worthless. The 65, east of this shaft, is also poor. Good progress is being made in the sinking of Peill's engine-shaft below the 105. No. 210 the 85 east the lode is hard, consisting of granite and strings of calcareous spar, winze, sinking below the 95, is in a compact and regular lode, now worth 1 ton per fathom. In No. 211 winze the lode is becoming smaller, and of less value than it was; present value 1/2 ton per fathom. The lode in No. 212 winze produces 1 1/2 ton per fathom. The usual quantity of ore was raised in the past month, and no change of importance has taken place in the stopes. The general works at surface are being kept on uninterruptedly, and the machinery is in good condition. We estimate the raisings for December at 200 tons.

Quintana. The 90, west of Taylor's shaft, has passed through a short shoot of ore in the past week, but is again unproductive. In the 80, west of Taylor's, the lode is still large, but at present poor. The lode in the 90, east of Taylor's shaft, is more open than it was. The 80, east of Addis's, is without improvement. The 65, in the same direction, is unproductive. A great length of ground was opened in the 65, west of San Carlos, in the past month; the lode is very wide, with occasional stones of ore. The 80, west of San Carlos shaft, is in a strong and regular lode, but without ore. The lode in the same level east contains spots of ore. In the 45, east of Judd's, the lode is 1/2 ton of ore per fathom. No. 210, on which has been met with in the 32 cross-cut, north of Judd's shaft. Excellent progress is being made in Taylor's shaft, sinking below the 90. In Judd's shaft, sinking below the 55, good progress is also being made. Henty's shaft, also being sunk below the 55, is in hard ground, the shaft being off the lode. The lode in Felipe's winze, below the 65, is large, and yields stones of ore throughout its width. We estimate the raisings for December at 100 tons.

LEAD ORES.

Date.	Mines.	Tons.	Produce.	Price.	Purchasers.
Nov. 30—Bronfield	25	.....	£17 1 6	Burby Port Smelt. Co.
Dec. 2—Great Laxey	100	.....	24 11 0	Nevill, Druce, & Co.
7—White Cliff	10	.....	15 10 0	Adam Eytton.
7—Tankerville	150	.....	16 3 6	George Burr.
8—Leadhills	14	.....	16 8 0	Walker, Barker, and Co.
—ditto	160	.....	14 17 6	Burby Port Smelt. Co.
—Tan-y-Bwlch	100	.....	15 10 0	—

COPPER ORES.

Sampled Nov. 22, and sold at Swansea, Dec. 5.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Betts Cove	156	9%	6 14 6	Ivera Ore	113	3%	42 3
ditto	.....	9%	6 12 0	Italian Prect.	2	35%	42 15
ditto	140	9%	6 11 6	Italian Ore	58	12%	8 17
ditto	110	9%	6 11 0	ditto	.....	12%	8 17
ditto	110	8%	6 9 6	Berelavon	100	7%	5 2
ditto	76	9%	6 10 0	ditto	75	7%	4 18
ditto	78	9%	6 9 0	ditto	54	10	7 2
ditto	110	8%	6 1 0	ditto	41	13%	9 13
Cape Ore	68	31%	23 12 6	Copper Ore	92	4%	2 11
ditto	68	31%	23 10 6	ditto	91	4%	2 11
ditto	67	31%	23 9 0	ditto	19	5%	3 3
ditto	70	31%	23 15 0	ditto	10	5%	7 7
ditto	50	37%	24 12 0	ditto	5	17%	12 15
ditto	49	35%	25 10 6	ditto	3	15%	0 12
ditto	14	25	15 11 0	Cronebane	69	2%	1 5
ditto	84	23%	17 6 0	Copper Dust	19	5%	3 13
ditto	84	23%	17 10 6	Copper Slag	6	12%	8 3
ditto	84	23%	17 4 0	Copper Prect.	8	41	23 15
ditto	83	23%	17 10 6	Concordia	16	19	3 8
ditto	83	23%	17 10 6	Cop. Regulus	2	50%	35 8
Ivera Ore	113	3%	4 6				

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—8. Toy, Nov. 27: Setting Report: The deep adit cross cut is now under the new engine shaft, and the men are engaged blasting down the sides of the level to make room to rise, which they will finish in a day or two, when I shall set them to rise towards the shaft. No. 1 adit to secure with timber, by two men, and to finish the same, at 11. 15s. per fathom. In the east part of the set (Crowlwin) the cross-cut to drive towards the south lode, by six men and one boy, at 8. 10s. per fathom; for the month; the ground is much the same for driving as it has been for several weeks past, but discharging more water.

8. Toy, Dec. 6: In the deep adit level the cross cut is now driven under the new shaft, and I have set six men to rise towards the shaft, at 10s. per fathom for the month. We have finished the timbering of No. 2 adit level. In the east part of the set (Crowlwin) the cross-cut driving towards the south lode still continues hard, and discharging much water.

ASHHEON.—John Craze, Joel Manley, Dec. 6: The 80, east of boundary shaft, is now extended 7 1/2 fathoms; the lode is from 3 to 4 ft. wide, and of the same character as described in our report for the general meeting. The 60, east of the boundary shaft, is extended 28 1/2 fathoms; the lode is of a very promising appearance, and is yielding good stone of lead and blende. Within the last day or two we have met with a branch in the north side of the level, producing about 5 cwt. of lead per fathom, and verging towards the lode; when this branch falls into the lode, seeing that this end is approaching the run of ore gone down in the sole of the 40, west of Browne's, we are of opinion that good results will follow. We should also remark that if this end is continued it will drain all the mine to a depth of 60 fathoms, and will avoid all pumping at Mawr and Browne's shafts, and will lay open a large section of profitable ground. We again strongly recommend the driving of the 50, east of Mawr, intersecting the north and south lode. The stone in the 50, west of Mawr shaft, still continues worth fully 40s. per fathom. Dressing and all other surface work is carried on with regularity. The parcel of lead sold to the Runcorn Smelting Company has been shipped. We shall ship the parcel of blende as soon as we can get a vessel.

BELSTONE.—James Neill, Dec. 2: The 80 west, on lode from cross cut south, has been driven this week 1 ft.; distance from cross cut 2 fms. 2 ft. The ground is a little harder than it was last week, having more capel mixed with it, and less blende and garnet. The strata are still porous, highly mineralised, and favourable for the production of larger quantities. The 50 ft. level east driven this week 8 ft.; distance from the cross cut 42 1/2 ft. There is no change at this point since last week. The strata are still favourable for working, very promising, and yielding yellow ore in quantities much the same as last week. C shaft cross-cut, north from intermediate level east, driven 2 ft. 6 in. The strata are very promising, showing black ore, and have every indication of improving. In the 40 stope there is a slight falling off in the yield of ore this week, but the change is only temporary. Circumstances and tribute pitch is without any material change, still yielding good black and yellow ore.

Dec. 7: In the 80 west there is a decided improvement; the ground is easier, and favourable for the production of ore. The end is showing a fine rich branch of yellow ore, which has now run for some distance, and has slightly widened. From all indications it is likely to yield well. The ore is of very good quality, and the matrix around it is everything that could be desired.

BODIDIS.—W. Hot-kiss, Dec. 6: Beyond a slight improvement in the 50 yard level driving east there is no change of importance since the report for the shareholders meeting.

BRONFLOYD.—T. Kemp: Setting Report for December: No. 3 Shaft, North Lode: The lift from the 110 to the 90 has been removed, and a larger one put down, as referred in my report last week, which answers exceedingly well, and the sinking of the shaft below this level has also again resumed on ground principally killas, moderately easy for progress. Four men to drive the 110 end west of winze at 240s. per fathom; the ground here is very tight for opening, which renders progress slow; the part of the lode carried by this drive is worth 25 cwt. of lead ore per fathom for the month (15 ft.). Twelve men to stop the lode over the back, and this level to the east of winze, at 85s. per cubic fathom; worth 20 cwt. of ore per cubic fathom; when this stop is sufficiently high enough we shall put in still, &c.; in the meanwhile the still is being put in, we shall strip down the main ore-bearing part of the lode from the western end of this stop to the winze, which is about 10 fms. long. Twelve men to stop the lode over the 90, east of Joshua's winze, at 70s. per cubic fathom; lode worth about 10 cwt. of ore per cubic fathom. Four men are employed in taking away an arch of ground over the 73 to the east of shaft, per day work; this is rather a difficult job, and should we be fortunate in removing the ground, it will turn out some good ore. Four men to drive Curtis's cross-cut south from the 73 east, towards the middle lode, at 11s. per fathom, which includes the removal of stuff; ground chiefly killas, of a favourable description for opening. The tribute pitch in the 40 is poor and suspended, and I have put these men to knock a hole through from the western stop to communicate with the big stop over this level, at 75s. per fathom; some years back an arch of ground between the 27 and the big stop gave way, in which there is some good lead, and no doubt it will pay well if we can manage to get it. No. 2 Shaft, Middle Lode: The part of the lode carried by this drive is worth 25 cwt. of lead ore per fathom for the month (15 ft.). Twelve men to stop the lode over the back, and this level to the east of winze, at 85s. per cubic fathom; worth 20 cwt. of ore per cubic fathom; when this stop is sufficiently high enough we shall put in still, &c.; in the meanwhile the still is being put in, we shall strip down the main ore-bearing part of the lode from the western end of this stop to the winze, which is about 10 fms. long. Twelve men to stop the lode over the 90, east of Joshua's winze, at 70s. per cubic fathom; lode worth about 10 cwt. of ore per cubic fathom. Four men are employed in taking away an arch of ground over the 73 to the east of shaft, per day work; this is rather a difficult job, and should we be fortunate in removing the ground, it will turn out some good ore. Four men to drive Curtis's cross-cut south from the 73 east, towards the middle lode, at 11s. per fathom, which includes the removal of stuff; ground chiefly killas, of a favourable description for opening. The tribute pitch in the 40 is poor and suspended, and I have put these men to knock a hole through from the western stop to communicate with the big stop over this level, at 75s. per fathom; some years back an arch of ground between the 27 and the big stop gave way, in which there is some good lead, and no doubt it will pay well if we can manage to get it.

CARGOLL.—J. Jennings, Dec. 6: The cross-cut north in the 24, 75 fms. east of Doctor's shaft, is driven 4 fms. towards a Boyer's flat-roof shaft, and the above shaft is sunk to the required depth (24), and are now driving against the said cross-cut; expect to hole in the present week, when I shall at once drive south by eight men to intersect the south lode, which in all probability will be intersected in the present month; and I have a strong opinion that on this lode will be opened up valuable ground. The lode is not quite so good as the 40, but is a fine, composed of flocon, in which are large lumps of muddle—a kindly lode. The 11 east, on the counter part, is not looking quite so well; the branch of lead is a little smaller, worth 3s. per fathom; no doubt it will improve again soon. Two stops in the 11 east are worth on an average 15s. per fathom. The adit end west of new shaft, on the main lode, is now forming a junction with a south branch; the lode is 4 ft. wide, composed of flocon, soft quartz, and thickly disseminated with muddle, and possessing every indication for a course of lead.

CATHEDRAL.—J. Mitchell, Dec. 4: We took down the lode to day in the engine shaft, and although the lode is not quite so good as the 40, but is a fine, composed of flocon, in which are large lumps of muddle—a kindly lode. The 11 east, on the counter part, is not looking quite so well; the branch of lead is a little smaller, worth 3s. per fathom; no doubt it will improve again soon. Two stops in the 11 east are worth on an average 15s. per fathom. The adit end west of new shaft, on the main lode, is now forming a junction with a south branch; the lode is 4 ft. wide, composed of flocon, soft quartz, and thickly disseminated with muddle, and possessing every indication for a course of lead.

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yielding 14 cwt. of ore per cubic fathom, or about 19 cwt. for the width of the vein.—Sun Vein: As the winze under the cross-cut at the 70 has proved since passing through the ore flat to be off to one side we have discontinued sinking, and have put the men to stop the bottom of the cross-cut till we reach the vein, taking with them the ore flat, which continues the same as when sunk through, 3 to 4 ft. in thickness, and worth 15 cwt. of ore per cubic fathom. We have assayed the ore from this flat, and find it contains 15 cwt. of lead, 10 cwt. of silver per ton of lead.—North Vein: The cross-cut at the 60, east of Red's shaft, is being pushed by four men; the ground is a little easier, and still letting out water freely.—Taylor's Shaft: Middle Vein: The cross-cut at the 41, east of shaft, continues as last reported.—Westgarth's Shaft: Middle Vein: The 74 west continues much the same, worth at present 10 cwt. per fathom; vein 2 ft. wide. The stone in the Little Limestone, in the back of this level, reported in the last report at 18 cwt. per fathom, has been cut up to forebreast, and the men have now been put to stop in the coal still, also over the 74, where the vein is worth 15 cwt. of ore per fathom.—Surface: The walls of the wheel pit are up, and the frame, 12 ft. by 8 ft., of good Meniel timber, fixed on the top ready to receive the water-wheel. Machinery all performing good duty.

DEVON GREAT CONSOLS.—J. Richards, Dec. 8: Wheal Anna Maria: Engine-shaft: In the 80 west, and west of Jeffrey's cross-cut, on the new south lode, the lode is still 2 ft. wide, and produces a little ore. In Blackwell's shaft, sinking below the surface, 30 fms. to the west of Jeffrey's cross-cut, on the new south lode, but little ore has been seen, owing to the fact that the water, arising from the recent heavy and incessant rain, the lode still produces a little black oxide of copper.—Wheal Joseph: Richards's engine shaft is in regular course of sinking below the 280; progress, however, is slow, owing to the ground having again become harder.—Richards's Engine Shaft: In Castle's rise, in the back of the 60 west, the lode is 4 ft. wide, and worth 3 tons of ore, or 90. per fathom.—Wheal Emma—Thomas's Engine-shaft: In Friend's cross-cut south, at the 137, east of the incline shaft, fair progress is being made. This cross-cut is being driven for the purpose of intersecting the new south lode some 45 fms. to the east of the present 118 end, and for ventilation. It has to be driven some 35 fms. further to intersect the lode, which at the present rate of driving will occupy about eleven months from the present date. The lode in the new shaft, on the new south lode, is still 5 ft. wide, and worth for length carried (10 ft.) 8 tons of ore, or 300. per fathom. This shaft is suspended for about six weeks to admit of top and trip pits being cut, dividing and easing the shaft, and putting in skip-road from the 160 to the 175, on the completion of which sinking will be immediately resumed.

New Shaft, New South Lode: In the 160 east the lode for the part carried is 5 ft. wide, and worth 7 tons of ore, or 240. per fathom. In the 115 east the lode is 3 1/2 ft. wide, and worth 3 tons of ore, or 100. per fathom. In the 100 east a portion of the lode (18 in. wide) produces a little ore: the main part of the lode, however, is most probably standing to the north, and the drive is turned in that direction for proof thereof. We sampled on Dec. 1 (computed) 860 tons of good quality ore for sale on the 20th inst.

EAST VAN.—W. Williams, Dec. 8: Tempest shaft is now within 2 fms. 4 ft. 6 in. of reaching the 25. The cross-cut south, from the 25, has 9 ft. more to drive to come under the shaft. The winze is down 10 fathoms below the 25 ft. level by the shaft.

FRANK MILLS.—J. Rowe, N. Addams, Dec. 7: The 100, north of engine-shaft, on east lode, is producing 8 cwt. of lead ore per fathom. The stone in the back of this level is producing 10 cwt. of lead ore per fathom. The stone in the back of the 84, north of engine-shaft, on east lode, is producing 4 cwt. of lead ore per fathom. The lode in the 72, north of cross-cut, west of boundary rise, is producing a little lead, and looking kindly for an improvement. The stone in the back of this level is producing 5 cwt. of lead ore per fathom. The stone in the back of the 60, north of boundary rise, is producing 5 cwt. of lead ore per fathom. The stone in the back of the 45, north of cross-cut, is producing 4 cwt. of lead ore per fathom. The stone in the back of the 30, north of cross-cut, is producing 4 cwt. of lead ore per fathom. The stone in the back of the 15, north of cross-cut, is producing 4 cwt. of lead ore per fathom. The stone in the back of the 0, north of cross-cut, is producing 4 cwt. of lead ore per fathom.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., Dec. 2: The lode in the 132 east is 5 ft. wide, producing good stones of ore, and showing a very improved appearance. The lode in the stope in the back of the 117 east is worth 100. per fathom. The lode in the 105 east is carried 5 ft. wide, yielding occasional stones of good quality ore. The lode in the stope in the back of the 95 is worth 60. per fathom. We have discontinued the 82 cross-cut driving south, and resumed the drive east on the course of the lode, which is 5 ft. wide, and producing stones of ore. We have five tribute pitches working by 14 men, from 12s. to 13s. 4d. in 1/2. We sampled yesterday, computed, 185 tons of copper ore.

GLENROY.—R. Rowe, Dec. 8: I was unengaged in Glenroy yesterday. Report posted. Nothing especially new since last report.

GLYN.—J. Roach: The engine shaft is now 5 fms. under the 28, and is being sunk as vigorously as possible. The 28, west of shaft, is very promising for lead. I think we shall be able to report favourable results at an early date.

GREAT DYLIFFE.—E. Rogers, Dec. 6: Dylyffe Lode: At the 132 we are driving west of the engine-shaft by six men, at 40. per fathom; the lode is worth 100. per fathom. At this level east the lode is also worth 100. per fathom. The shaftmen I intend to put to drive this end are engaged with the carpenter in fixing pulleys to carry the wire-rope for drawing the skip below the 120. The 120 is driving west by six men, at 40. per fathom; the lode is worth 100. per fathom. In the back there are six men rising at 60. 10s. per fathom; the lode is of just the same value as in the end—160. per fathom. The 120 end, east of the engine-shaft, is suspended for the present, and the men (six in number) put to rise in the back at 80. per fathom; the lode is worth 150. per fathom. The 105 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom. The 90 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom. The 75 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom. The 60 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom. The 45 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom. The 30 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom. The 15 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom. The 0 is driving by six men, at 40. per fathom; the lode is worth 100. per fathom.

GREAT LAXEY.—W. H. Rowe, Dec. 5: It is satisfactory to be able to report that the 235 west of the engine shaft is still in the same position. The ore in this level, south of engine-shaft, having discovered nothing further than hitherto reported, the driving southward is resumed. Beyond the discovery of the bearing part of the lode in the 210, driving north by cross-cutting, nothing very new has occurred in this part of the mine since last report. Although intersected more than a week since, the hanging wall is not yet reached, and, therefore, its full value cannot yet be reported. So far it would be safe, I think, to estimate it at 500. per fathom. The matter is of so much importance that we have to day arranged to commence another cross-cut some 15 fms. further south from the old level. This, with the aid of an inclined level, will intersect with the other driving. The value of the stope above this, as well as in Dumbell's having been so fully reported of late, there is nothing to add, except the intersection of the lode in the 215, south from Dumbell's, where it so far shows rich blende. The 110 north also offers to improve. A stope in roof of this level is worth 700. per fathom.

GREAT RETALLACK.—John Harris, Dec. 2: The lode in the 20 west is producing good stones of blende and a little copper ore, but not enough to value. The ground has very much eased within the past two or three days, and the men are making good progress in the drive.

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men, as these workings are now thoroughly ventilated, and can be pushed on rapidly. There has been a little ore in 15 end driving east during the greater part of the past month, but unless it further improves very shortly I would suggest that the whole of the workings on this lode, with the exception of those that will pay, be suspended, and that our future operations be confined to the development of the south lode, where I think there are yet fair chances of success.

MELIANEAR.—Dec. 6: The lode in the 30, west of skip shaft, is 2 ft. wide, and producing a little blende, muddle, and stones of copper ore, but nothing to value. The lode in the 50, west of shaft, is the same as last reported, and is worth 2 1/2 tons of ore per fathom. The 67, west of shaft, is improved, and now worth 6 tons of ore per fathom—a very fine looking lode. The 78, west of shaft, is also looking a little better, and worth 3 1/2 tons of ore per fathom, and the men are making good progress in driving. The stone in the back of this level is worth 4 tons of ore per fathom. There is no change in the value of the lode in the 85; still worth 2 1/2 tons of ore per fathom, but the ground is a little more favourable for driving. The 78, east from Gundry's shaft, is driven about 6 1/2 fms.; this level is still in the elvan, but we have cut some small cross-veins of spar that are letting out a little water from the south side of the level. Gundry's shaftmen have secured the ground at the 78, and are now engaged in cutting bearers, hitches, and cistern plat. Our engines and pitwork are in good working order, and are keeping the mine drained to the bottom very comfortably.

MOXYBOD GORDEU.—Richard Rowe, Dec. 6: We must all be pleased with 18. 15s. 6d. per ton for the last parcel of lead sold. With a continuance of such a price, and a little improvement in the mine, which we may expect, we should quickly be in a better position. The trucks are at the station, and the carrier will commence carting down to-morrow, so I hope to get it all off by Saturday or Sunday next. The 24 cross-cut is extended from shaft towards the lode 12 ft. I calculate 6 ft. more to reach the lode. We are going out in a healthy, compact claystone, which leads me to expect a good discovery soon. The stope continues to yield fair quantities of mineral. The weather is open, but wet and cold. The former brings us plenty of water, and the machinery being in good condition, all work is kept in full swing.

NEW CHIVERTON.—James Trewartha, Dec. 7: There is nothing new to report on since the meeting, but next week I will give you a report in full. We sampled on Tuesday last 19 tons of lead (computed) for sale on the 14th inst.

NEW NORTH POOL.—W. C. Vivian, Dec. 7: The cross-course is now 4 ft. wide, and so loose that he can drive 3 fms. per week. It is highly mineralised, with arsenical pyrites, yellow sulphur, pyrites, and traces of copper. Nothing to value, but the ground is so favourable that we are getting rapidly to the position in which we hope to cut the lode.

NEW ST. AGNES.—W. Vivian, Dec. 7: In the shaft sinking on the flat lode, below the 84 fms. level, the lode is from 3 to 4 ft. wide, producing rich stones of copper ore and tin, with every appearance of further improvement. In the 84, driving east, the lode is 2 ft. wide, worth 50. per fathom for tin. There is no change to notice in the other parts of the mine since last week.

NEW TYLLWYD.—J. Paul, Dec. 7: The lode in the 30 is 5 ft. wide, a strong lode, with spots of ore in the same, and water is issuing freely from it. No improvement in the 20 driving east, on middle lode during the last week. We have set two men to drive east in the 20 on south lode. We have also repaired the wall of the driving machine, so that it works well now.

NORTH LAXEY.—R. Rowe, Dec. 5: We commenced to sink the engine shaft on Monday morning. The lode in the winze sinking below the 121 is in a tight layer of ground, and smaller, now worth 1 ton of lead per fathom. The 60 and 50 stop a still maintain their value, and are worth from 15 cwt. to 1 ton of lead per fathom.

OLD TREBURGET.—W. Hancock, W. T. Bryant, Dec. 10: The 102, to drive south of the engine shaft, on the lode, by six men, two months, at 45s. per fathom; the lode is 1 ft. wide, producing a little ore, but not of any commercial value. In the 90 the lode is still large, worth about 70. per fathom; contract not out. To drive the 80 south, by four men, two months, at 60. 10s. per fathom; lode at present disordered by patches of elvan. No. 3 winze, to sink below the level, by four men, two months, which will make it the required depth for the 90; lode 4 ft. wide, worth about 60. per fathom. No. 1 stop, in the back of the level finished No. 2 stop, by four men, two months, or finish it at 35. 5s. per fathom, worth 120. per fathom. No. 3 ditto, by four men, two months, at 45s. per fathom, worth 120. per fathom. No. 4 ditto, by six men, two months, at 45s. per fathom, worth 120. per fathom. No. 4 ditto, by two men, one month, at 50s. per fathom, the three latter will, no doubt, very much improve as they go up. To stop the bottom of the 70, north of No. 4 winze, by four men, one month, at 50. per fathom, worth 400. per fathom; this and the latter stops in the back will be worked by one party of men for convenience. Masey's shaft, sinking below the 20, contract not yet out. To rise and stop in the back of the 49, against it by four men, at 45s. per fathom, and 50. per ton for the ore. We have 33 men on tribute in different parts of the mine—three at 14. per ton, eight at 14. per ton, five at 17. per ton, and sixteen at 20s. per ton for No. 1 quality dress ore, and 8s. per ton for No. 2 quality.

FATELEY BRIDGE.—C. Williams, Dec. 7: The Lumb vein, in the cross-cut, in the 10, is not looking quite so well, but is still of the same width, and producing some nice lead ore, and would, I believe, soon improve again, but part being now in the sole of the level we offered it to the men as a metal bargain, at 55s. per bag for clean ore, but they refused to take it on those terms, and it is, therefore, suspended for the present. This point has hitherto cleared about 50 per cent. profit to the company. Fielding's vein, in the stope over the north-west drive, in the 20, is producing about 1 ton of lead ore per fathom—a 1-ton lot is being put in for clean ore. In the south cross-cut, in the 20 west, on the new vein, nothing has been done since my last advice. In the south cross-cut the ground still remains hard, but fair progress is being made—set to cut the vein at 100. per fathom. The Kake vein, in the 30, going south east, is 6 ft. wide, consisting of barytes, gossan, and branches of lead ore. This end is going direct under the rich deposit of ore left by the last company. The north-west end, going under the bed of ore, is also in similar ground.

FEDERATED CONSOLIDATED.—W. Treagus, William Pribaux, John Pope, Dec. 7: Summary: In the 40 east winze the lode here (Martin's) is worth 40. per fathom. In the 110 east end the lode here (Martin's) is worth 40. per fathom. In the 130 west end the lode here (Martin's) is worth 250. per fathom. Cardozo's: In the 100 west end the lode here (north) is worth 100. per fathom. In the 90 west end the lode here (north) is worth 120. per fathom. In the back of this level the lode will produce 2 tons of black tin, worth 900. per ton; the lode is of equal value in the bottom of the level, but we cannot prosecute the sinking further until the 100 end shall have been further advanced—partially driving it, as it contains a large quantity of water. In the 80 west end the lode here also produces 2 tons of black tin, worth 900. per ton. In the 60 west end the lode here is worth 200. per fathom. In the 55 west end the lode here is worth 120. per fathom. In the 47 west end the lode here is worth 50. per fathom. No other changes to report.

FENNERLEY.—W. T. Harris, J. Delbridge, Dec. 6: There is a further improvement in the 130 east on Big Ore lode; the lode is now 1 ft. wide, carbonate of lime and lead ore, worth of the latter

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: Original Correspondence: Mining in Colorado, South Park—No. 111. (Cherokee); Mining in Colorado; Mining in the East—No. X; Nevada Mines—Depreciation of Silver, &c.; Mining in New South Wales; Eschquer Gold and Silver Mining Company (A. Joy); Foreign and Home Mining—Coal Working—"Billy Fair-Play"; Iron Ore; Lead Mining in the Isle of Man; Glenroy Mine, Isle of Man (C. Ainsworth); the Pneumatic Stamps; Free Trade, and Copper (R. Tredinnick); the Present Opportunities for Investors in Mining Properties (R. Budget); Mine Agents; Wheel Grenville (J. Watson); Devon Great Consols Meeting; Mine Agents; Mining Company; White Cliff Lead Mine; Lord Mayor's Court, Ethington; Ward—The Exhaustion of Our Coal Fields—The Coal Trade—Foreign Mining and Metallurgy—The Utilisation of Coal Dust—Cotton Powder—Hydraulic Propulsion of Tramway Cars—Miners' Safety Cages—Manufacture of Iron and Steel—Treatment of Metallic Ores—Patent Matters—Meetings of Bodirris, West Godolphin, Great Snaefell, West Asheton, Asheton, West Goginan, Parys Mountain, Tollima, West Wye Valley, and Gauley-Kanawha, Companies, &c.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, DEC. 8, 1876.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Pig, G.M.B., Clyde, 2 18 3			English, ingot, f.o.b.	81 0 0	82 0 0
Scottish, No. 1, 3 10 3			" bars	82 0 0	83 0 0
Bars, Welsh, f.o.b. Wales 6 5 0			" refined	83 0 0	84 0 0
" in London, 6 15 0			Australian	77 0 0	78 0 0
" Stafford, 6 10 0			Banco	77 0 0	78 0 0
" in Tyne, 6 10 0			Straits	77 0 0	78 0 0
" Sw-dish, London, 10 10 0					
Rails, Welsh, at works, 5 7 6			COPPER.		
Railway chairs			Tough cast and ingot	82 0 0	83 0 0
" spikes			Best selected	84 0 0	85 0 0
Sheets, Staff., in London 9 15 0			Sheets and sheathing	87 0 0	88 0 0
Plates, Staff., in London 9 10 0			Fiat Bottoms	92 0 0	93 0 0
Hoops, Staff.			Wallaroo	85 10 0	—
Nail rods, Staff., in Lon. 7 15 0			Burra, or P.C.C.	85 0 0	—
			Other brands	82 0 0	83 0 0
			Chili bars, g.o.b.	75 15 0	—
STEEL.					
English, spring	14 0 0	23 0 0	PHOSPHOR BRONZE.		
" cast	25 0 0	45 0 0	Bearing metal	2112 0 0	—
Swedish, keg.	15 10 0	—	Other alloys	2120 0 0	140 0 0
" tag. ham.	17 10 0	—			
LEAD.			BRASS.		
English, pig, common	22 5 0	—	Wire	9 1/2 d.	9 1/2 d.
" " L.B.	22 10 0	—	Tubes	9 1/2 d.	—
" " W.B.	23 5 0	—	Sheets	8 1/2 d.	9 1/2 d.
" sheet and bar.	23 0 0	—	Yel. met. sheath. & sheets	7 1/2 d.	8 1/2 d.
" pipe	23 10 0	—	Nails composition	9	9 1/2 d.
" rel.	23 10 0	24 0 0			
" white	24 10 0	25 0 0	TIN PLATES.*		
" patent	24 10 0	25 0 0	Charcoal, 1st quality	1 4 6	1 6 6
Spanish	22 0 0	—	" 2nd quality	1 3 0	1 4 0
QUICKSILVER.			Coke, 1st quality	1 1 0	—
Flasks of 75 lbs., ware	8 5 0	8 10 0	" 2nd quality	0 19 6	1 0 0
SPELTER.			Black	0 17 0	17 0 0
Silesian or Rhenish	22 10 0	—	Canada, Staff. or Glas.	13 0 0	13 10 0
English, Sweden	23 10 0	—	Black Taggers, 450 of	30 0 0	—
Sheet zinc	26 10 0	27 0 0	14 x 10	—	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; 1X 6s. per box more than 1C quoted above, and 4s. for each X. Terms—plates 2s. per box below tin-plates of similar brands.

REMARKS.—In the month of December there is generally an increased demand for the ordinary wants of daily life; but, beyond articles of consumption and clothing, and a few other indispensable, trade at this season of the year is not particularly active, and metals form no exception to the rule, and this month this year will probably prove less favourable than usual, as the greater part of it will doubtless be taken up by matters of a very different kind claiming prior attention. In the first place, the public mind during the next fortnight, at least, will be almost entirely absorbed with the plans and discussions of the Conference, and as long as the stirrings are continued our markets, in common with others, will be kept in a feverish state of excitement. Every scrap of information will be eagerly sought after, and made the most of, either for elevating or depressing prices, and it is as well for holders to be fully alive to the immense risks they are running, and the dangers to which they may be exposed, in the event of the Conference proving a failure and a ruinous war ensuing. There are some, however, who imagine that if war be declared that it would be strictly confined to the Turkish possessions, and that, consequently, no harm could happen to us at this distance from the scene of action; but only to a certain extent are they right, for, even allowing the amount of business with Eastern Europe to be of comparatively slight consideration, yet a war between Russia and Turkey would not only affect our commerce so far as those countries are concerned, but also every other inhabitable part of the world more or less, and, as a matter of course, it necessarily follows that, if trade is restricted, it is almost impossible for prices to improve. To assume that the war would be exclusively between Russia and Turkey is to place the mildest construction upon the turn which foreign politics may take, as the great doubt that exists is in regard to this particular point, and the question which affects us so materially is to what extent is it likely to be hereafter involved; if we knew that we should take no part in it we could, perhaps, look on with indifference so far as the interests of our markets are concerned, but there is great fear entertained lest England may be drawn in later on, and if so we might have a repetition of the Crimean blunder. Besides this Eastern difficulty there are other events of serious importance lately transpired farther east, which are already beginning to have an effect upon trade—we refer to the terrible cyclone and the dreadful famine in India. So no time ago several public works were suspended in consequence of the falling off in the revenue, and as Government grants will not be required for the famine-stricken districts there is very little hope of amendment in business from that quarter for some little time to come. If the affairs of the East are not hopeful neither are those of the West just now, for the contest over the elections for President is so severe that it is feared some outbreak may follow. Turning, however, from these grave and mournful apprehensions there is, secondly, nearly another week which will be occupied with the Christmas festivities, so that what with evil forebodings and national rejoicings the time will be pretty well divided, and few will care to bestow any special attention to the metal market, especially as they are in it worthy of notice at the present time. In short, one week has already expired and nothing done, the next two will be lost over the Conference, and the fourth and last spent in holidays, and thus will end the very disastrous year of 1876.

COPPER.—Last week ended without any manifestation of improvement in this metal, and buyers would not exceed 76d. for g.o.b.'s. On Monday the market remained in much about the same languid condition. Burra Burra was offering at 84d. 15s. The appearance of the market was rather unsatisfactory, as there seemed to be so little doing in regular business, and speculation was decidedly damped, and the only way to effect sales was to submit to lower rates than were currently quoted. Whenever the tone of the market is so extremely low it is an unfavourable symptom of declining prices, and as there are a great many prompts falling due this and next month buyers will probably hold back for a time in expectation of buying a little cheaper. On Tuesday quite a gleam of hope was manifested by the announcement of charters for the last half of November being about 30,000 tons, consisting of 900 tons of bars, about 1400 tons of ores and regulas for England, 800 tons of bars for the Continent, and a fall of 2 1/2 per cent. was also telegraphed from Valparaiso, but other telegrams did not confirm this declension. These heavy charters take all courage out of holders, and are calculated to produce a very depressing effect; the course of the market may, therefore, now be considered doubtful, as the statistical position will be quite sufficient in itself to prevent any advance taking place unless by means of speculation.

It matters not whether peace or war ensues, the market no longer hinges upon that question, as it is already too heavily weighted, and can never rise on its own merits while supplies are so excessive. It is very unfortunate for those who are so deeply interested in maintaining prices that the market should have gone away, but it cannot be helped, and if circumstances are altered it is no use to attempt to bolster up a decaying market; and, should stocks go on increasing, and charters continue heavy, and prices in Valparaiso decline, prices here must also follow in the same track, and before any impression can be made upon the Chili supplies it may be found necessary once more to drop the price again to 70d. There is but one principle by which prices are governed—that of "supply and demand"—and just now the supply is excessive, and the demand limited.

Speculation at such periods does more harm than good, and it is better to leave the market alone that it may reach its proper level, and then a movement can be made upon a sound basis; but to act prematurely simply invites failure, for consumers rarely buy for stock when it is known that prices are fictitiously upheld. On Wednesday the market was no better than on either of the previous days, and sales were effected at 75d. 15s., both for cash and three months prompt. The fall of 2 1/2 to 4d. in the standard at the Swansea ticketing on the previous day helped to add to the depression. Another sale is announced for the 16th inst. The decline at the last two sales is evidence of the state of the market, and clearly shows that there is no keen competition amongst smelters for furnace material. Indian sheets, 4 x 4, can be bought at 87d., but are difficult of sale owing to the famine in India; and the Bombay houses speak very despairingly of their market. On Thursday the market opened doubtfully, and there were selling limits as low as 74d. 15s.; but in course of early change buyers exhibited a more sanguine disposition, and 75d. 15s. was realised for 25 tons Lots, and 74d. for g.o.b. prompt Jan. 1. Although Australian is also a little easier, yet the supply is limited, and prices are, in consequence, less depressed for fine copper. To-day the market has assumed a quiet appearance, and a further small sale has been effected, at 75d. 15s., cash.

IRON.—The amount of business doing is still very limited, although some few orders have been given out for merchant bars and nail rods. The demand is chiefly upon these two kinds of iron, but the quan-

tity required is not so much as to justify the increased prices that are being asked by some sellers, but the works have been accustomed to idleness so long that a little improvement is soon exaggerated into one of importance. There are some makers who never will learn wisdom, and upon whom experience is thrown away, yet the time that has elapsed since the last fatal mistake was made of advancing rates with such indiscretion is so short that it might be thought more care and judgment would have been exercised in the regulation of present prices, but it appears otherwise, and no sooner do the least signs of recovery begin to manifest than these voracious sellers, eager to procure an advantage, immediately raise their prices, and in so doing force buyers to take their orders elsewhere. It is quite certain that it is folly to look for any permanent rise yet awhile in prices. At this time of the year especially iron generally is not much in demand, and, therefore, any improvement there may be just now may be looked upon as merely temporary; and, further than this, it is perfectly clear that prices cannot be upheld on this side while we are being so completely undersold in Belgium. It is not only an inconvenience, but a truly public grievance, when the trade is subject to this arbitrary sort of treatment, and however ironmasters can expect that the former flow of orders will ever return to them when they act in this kind of way is a mystery which even they would find it difficult to solve. One thing is so far fortunate—that the majority of makers have not yet moved their prices; the movement is confined to a few whose brains have gained some degree of notoriety, and in whose rates some reaction may quickly follow. Rails have been in slightly better request, and it is estimated that orders for about 20,000 tons have been placed in Wales during the past month; prices are a shade firmer, sellers now wanting 87d. 10s., but would probably not refuse 2s. 6d. per ton less. In Scotch pigs the market has been quieter, and prices easy; mixed numbers to-day are quoted at 78s. 10s. 6d. cash. The stock in store is 98,197 tons, being an increase of 2973 tons, with warrants in circulation for 88,000 tons.

SHIPMENTS.	Tons	9,786
Week ending Dec. 4, 1875		7,880
Week ending Dec. 2, 1876		1,906
Total decrease for 1876		71,959
Imports of Middlesbrough pig-iron into Grangemouth:—		
Week ending Dec. 2, 1876		7,185
Week ending Dec. 2, 1875		3,626
Increase		3,559
Total increase for 1876		69,666

LEAD.—In ordinary English makes the price has receded 5s. per ton, but for noted brands prices remain much about the same as before. The demand for home consumption is dull at this time of the year, and sellers do not anticipate any improvement before the beginning of the ensuing year. Spanish pig has realised 22d.

SPELTER.—This market has been very quiet, and the value gradually receding. It the beginning of the week Silesian was quoted 22d. 7s. 6d. to 22d. 10s. On Wednesday a sale of 25 tons s.s. brand was reported at 23d., but Silesian was quoted down to 22d. 5s. At the public sale yesterday 115 tons of English zinc realised 25d. 15s., which is 5s. per ton lower than the sale of the 23d ult.

STEEL is without change. QUICKSILVER.—Importers still adhere to 8d. 10s., but the market is not clear of second-hand lots, which can be bought at a slightly lower rate.

TIN-PLATES.—There is not much alteration in the general state of the market, and makers are still willing to book orders at previous quotations. The prices are comparatively low, and ruling in buyers' favour, at the same time they do not exhibit any particular eagerness to avail themselves of the advantage.

TIN.—At the termination of business last week prices were nominal, and at the beginning of this week transactions were reported in Straits at 77d. cash and for January (March prompts), and for arrival 76d. 10s.; a small lot of Australian at 75d. 10s. cash. On Tuesday the market was inanimate, and the quotation for Straits was 75d. to 77d., the former price being for the taken middle of February prompt, the latter also for the same month and for December; January shipment, 75d. 15s., and Australian, 75d. On Wednesday there was not quite such good prices realised: 30 tons of Straits were reported at 75d. 10s. to 76d. 10s. for January, and 76d. for March, and 76d. 15s. for December, January shipment. Australian, 75d., for both spot and arrival. On Thursday there was a change for the better, and Straits were firm at 76d. to 76d. 10s. for cash and forward. In Australian a large quantity was sold at 75d. to 76d. 10s. for cash and forward; the bulk of the business was reported at the lower figure. To-day the improvement has continued, and a satisfactory advance has taken place, Straits being 77d., and Australian 76d., closing firm, sellers demanding higher rates.

MESSRS. FRENCH AND SMITH.—COPPER: The market was quiet throughout the past month, and values have been in favour of buyers. Charters from the West Coast were advised for the first fortnight of November as 1900 tons; second ditto, 3000 tons. We quote Chili bars, 7s.; Wallaroo, 8s. 10s.; Burra, 8d. 10s.; tough, 8d.; manufactured, 8d. to 9d.; ore and regulas, 15s. to 16s. 6d. Tin was largely dealt in, and a price of 5d. per ton realised during the past month. On the 24th ult. the Dutch Trading Company held their last sale of this year, when 29,811 slabs Banca realised the average price of 48-60d., equal to about 75d. laid down here. At the same time 3510 slabs Biliton sold at 45-80d., equal to about 74d. laid down here. These prices were considered satisfactory, and seemed confirmatory of the late rise here, but at the same time telegrams advising considerable shipments of Australian came to hand, and buyers immediately withdrew, in the expectation of buying at lower rates. Large parcels have since changed hands at 77d. down to 75d. Straits is comparatively scarce.

MESSRS. FRY, JAMES, AND CO.—COPPER has been slow of sale, and although holders have been most firm, there is a generally acknowledged decline in values of from 10s. to 20s. per ton on raw copper, and even more on that on manufactured for export. The stocks at the close of the last month show but very slight change. Iron has receded in value of Scotch pig, and is without change on other respects.—TIN has been more freely offered, and values have declined from 20s. to 40s. per ton from the highest.—LEAD has been slow of sale, and prices are rather easier for pig.—SPELTER is quiet, and follows the general market in being easier to buy.

MESSRS. RICHARDSON & CO. (SWANSEA).—The stocks of Chili copper represent about 4550 tons fine. Private sales of ores and regulas have taken place to a considerable extent during the past month at from 15s. 6d. to 16s. per unit—a goodly portion to arrive. The charters from the West Coast since our last advice are—For the last half of October, 700 tons bars and ingots and 600 tons furnace material for England, and 1500 tons bars and ingots for France. For the first half of November, 950 tons bars and ingots and 900 tons furnace material for England, and 30 tons bars and ingots for France. The stocks of metal in England are very moderate, but they are heavier in France than they have been since February, 1871. The shipments from the West Coast up to Oct. 30, for the past four years, have been—1873, 35,300 tons; 1874, 39,920 tons; 1875, 39,940 tons; 1876, 42,500 tons, showing a steady increase, but it is counteracted by our increased consumption and demand.

THE MINING SHARE MARKET is in a very unsettled state. A

week or two ago there was a rise in the standards for tin ores, a

great advance in tin mines, and a better feeling in the market

generally. All at once this week the smelters have put down the

standard 3d. per ton, and the consequence is a fall in tin shares,

and very general depression. The ups and downs of the tin

standard (still thought by many to be regulated entirely by a

monopoly of buyers, who would thus seem to get the miners' ore at their

own prices) is causing shares to fluctuate as much as foreign bonds,

and some action on the part of the miners themselves is requisite

to counteract these influences. A plan was suggested some years

ago in the Journal for remedying the evil.

TIN MINES have been very depressed. Carn Breas are 40 to 42d.

Tineroft, 20 to 22, nominally. The accounts of these two mines are

creating much comment, and no little uneasiness. It is many years

now since attention was first called to the costs kept back, and the

matter has since been kept constantly before the readers of the

Journal. Dolcoath, 40 to 42d.; Penstruthal, 9s. to 11s.; South Con-

durrow, 7 to 7 1/2; Wheel Grenville, 22s. 6d. to 27s. 6d. At the Pro-

vidence Mines meeting in Cornwall the accounts showed a loss of

745d. on four months' working, and a call of 1d. 10s. per share was

made. The costs for four months amounted to 2253d. Cred ts for tin

rod sold, 1433d. The mine formerly so rich has paid upwards of

110,000d. in dividends to the shareholders, but the great fall in tin

having of late necessitated several calls many shareholders have

relinquished their interest. Reliance Consols, 4 to 5.

IN COPPER MINES business has been done in Parys Mountain at

11s. to 13s.; at the meeting (particulars of which will be found in

another column) the accounts, together with directors' and agent's

reports, were unanimously adopted and passed. To show the im-

portance of the 90 cross-cut south, towards the great open-cast, the

agent attended with plans and sections, from which it would appear

that there are four known lodes ahead of it, and the first very near

at hand; all these four lodes have been cut at the 45 fm. level fur-

ther east, and were all very productive from that level upwards;

they will now be cut at 45 fm. deeper, and in whole ground to surface.

The 90 east, at Carrogdol, is opening up more ore ground. The

present returns of copper are about 200 tons per month, and a rise

of 1d. per ton would turn the present loss into a profit, without

regard to the discovery that may shortly be made at the 90 cross-

cut south. Marke Valley, 1 1/2 to 1 1/2; Prince of Wales, 3s. to 4s.

SOUTH CARALON, 11s. to 12s.; a handsome testimonial was presented

last week to Mr. Kittow, the purser of this mine from its com-

memencement 40 years ago, until very lately. During the proceed-

ingly. During the proceedings it was stated that upon a capital of

640d. this mine had paid 374,272d. in dividends to the shareholders,

and 100,000d. in dues to the L.L.S. Devon Great Consols, 4 1/2 to 4 3/4;

the sampling for this month is 860 tons of copper ores; and the

mines continue to look well. Cathedral, 20s. to 30s. Wheel Crebuz,

2 to 2 1/2.

With regard to LEAD MINES, Tankerville has declined from 9 1/2

to 8 1/2; the accounts for six months, just issued, show: Lead ores sold

from April to October, 11,052d. 16s. 3d.; costs from March to August

inclusive, 7439d. 12s. 8d.; profit, 3583d. 8s. 7d., to this must be added

the balance brought forward of 5393d. 16s. 6d., and deducting two

dividends of 5s. per share, paid in May and August (6000d.), leaves a

balance now carried forward of 2977d. 12s. 11d. The report of the

mine states that the great lode has been opened upon in the 180 west

5 fms. in length, and driving commenced in a lode worth 30d. per

fathom. The east end is worth 45d. per fathom. The sampling on

Nov. 30 was 150 tons of lead ores. Roman Gravels have been more

dealt in at 13 1/2 to 14 1/2; the mine in the 106, the 95, 80, and 65 levels,

the agent states, is opening out in a most satisfactory way. Van,

36 to 37; East Van have advanced to 8 1/2, 8 1/2; Van Consols, 1 1/2 to 2;

Glyn, 2 1/2 to 2 3/4; Great Laxey, 1 1/2 to 2 1/2; Glenroy, 1 1/2 to 2; North

Laxey, 10s. to 12s. 6d.; sinking the engine-shaft below the 130 was

commenced on Monday. West Tankerville, 1 1/2 to 1 3/4; the sampling

here is 35 tons of lead ore for the month. Combmartin, 3 to 4;

Asheton, 1 to 1 1/2; Aberdaunt, 10s. to 15s.; Derwent, 3 to 4;

Ladywell, 1 1/2 to 1 3/4; Pennant, 5 1/2 to 6; Pennerley, 1 1/2 to 1 3/4; Llan-

west, 2 to 2 1/2; West Asheton, 1 1/2 to 1 3/4; West Chiverton, 18 to 19;

West Craven Moor, 12 1/2 to 13 1/2.

Bookhope are in demand at 16s. to 18s.; the telegram from the

secretary, published in this article in May last, and lately referred

to by one or two correspondents of the Journal, certainly led share-

holders to expect earlier results. But we are assured, and plans

and reports have been placed before us in support of the statement,

that the delay in the anticipated returns have not been from any

falling off in the value and prospects of the mine, but simply from

a want of drawing and dressing power, which will be remedied

by February next, when a shaft, which has been sinking at some

expense, will communicate with the 42 level, and admit of the ore

being brought to surface. Until that time the returns will be from

20 to 25 tons of lead per month. When the communication is made

the agent hopes to sell 40 and 50 tons per month, and this we are told,

would leave a monthly profit equal to 10 per cent. per annum on the

capital of the company. Much more than this is looked for, how-

ever, from the known capabilities of the mine. Dyffide, 4 to 4 1/2; the

worth 1000 per fathom, and much of the ore was valued at over 120 ozs. of silver to the ton.

Richmond, 9 to 9½; the telegram received states the week's run at \$35,000. The refinery produced in the week doré bars to the value of \$25,000. The manager reports that a stope was commenced between the 700 and 800 ft. levels, and the ore being worked is of good quality. The 700 drift is in ore-bearing matter, and looks promising. The 600 drift is sufficiently advanced to hole through to the ore body, where a stope will be started. At 38 ft. above the 600 ft. level a level has been made 70 ft. to the south-east, 30 ft. of it in good ore, and the end still in good ore. The 600 main drift is being pushed forward, and the indications are that a large quantity of ore exists in that direction; this part of the mine is looking better than ever. The winze in the bottom of the 400 is holed through to Potts's chamber. A drift has been started in a rise 40 feet above the Lizette tunnel, and driven in ore which for some short distance was low grade, but is now looking better. The five furnaces are in full work, and smelting large quantities of ore. A local journal reports that the new line connecting the Richmond Mine and works is making rapid progress, and was expected to be ready by Christmas. On Nov. 14 the Richmond Mining Company broke ground on Ruby Hill for a new working shaft. The site of the new shaft is a point above 1000 ft. north-west of the present hoisting works of the company. It will be a three compartment shaft, each compartment 4 by 4, and substantially timbered, and will be sunk a distance of 1200 ft., at which point it is expected to tap the ore body now being worked by the company. Powerful hoisting and pumping machinery will be erected, and the shaft when completed will be the principal opening through which the Richmond Mine will be worked.

Exchequer, 1½ to 2; it is said to be probable it will be the beginning of the year before everything connected with the mill will be complete; the mine continues to look well. The stopes in the 200 ft. level maintain their value, and stoping is about to be commenced at the 300, where some rich ore has been found. I.X.L., 3 to 1½; the out-flow of the bonanza appears to have been reached in the 200 ft. level, although some 80 ft. nearer the shaft than was expected, showing, as in the Exchequer, the dipping of the ore shoot towards the shaft. Eberhardt, 8 to 8½; a telegram has been received from Capt. Drake, which appears in another column. It mentions that there are 1100 tons of ore on the dump, and that the tunnel has been extended 400 feet. Flagstaff, 3 to 1½; towards the close there was some enquiry for these shares.

The market for Hydraulic or Gold Washing shares has shown somewhat more animation during the week. The news from the various mines is considered encouraging, and as ruins have been very general throughout California washing has been resumed. In reference to this description of mining it is remarked that one cannot realise the magnitude of the mining operations now going on in California without visiting them, and that the third generation will not exhaust the mines there. Blue Tent, 3 to 3½; the company have lately obtained a considerable supply of water through their own ditch, and the volume is increasing as the rains continue. Washing at Enterprise and South Yuba claims is steadily progressing, and the future is regarded as encouraging. Sweetland Creek, 3 to 4; the agent, Mr. McLean, has telegraphed a further clean-up, resulting in a profit of \$3000. This is considered the more satisfactory, as the agent had expressed a not very sanguine opinion with regard to it. Cedar Creek, 3 to 4; the Baker claim is reported ready for water, which was to be turned on almost directly at the date of the last advice. The company's reservoir had been sluiced out and enlarged, and will prove of much benefit to the company during the forthcoming season. Oregon (pref.), 4 to 4½; the agent reports that he has commenced washing, and if the rains continue will keep steadily on. The prospects are good, and everything is in capital order for utilising the water. The new ditch now finished will be of great advantage.

Lead Mines have been without much quotable change. Van, 3½ to 3¾; the 105 west is producing good ore. In the 60, east of shaft, the lode is worth 200 per fathom as far as cut through. No other change to notice. The usual four-weekly sale of lead and blende takes place next week. Grogwin, 5½ to 5¾; the late improvements at this mine are making steady progress. Wye Valley, 5½ to 6½; there has been a further improvement in the value of the lode at the 22 east. The branch of solid lead ore is now about 9 in wide, and improving. The winze below the 10 is valued at fully 6 tons per fathom, and the new discovery in the adit east at about 1 ton to 1½ ton per fathom. It is contemplated sinking a new shaft on this portion of the mine forthwith. West Wye Valley, 3½ to 3¾; the details of the first annual general meeting will be found in another column. A large extent of ore ground is being accumulated, and the manager stated that he should have no difficulty in making profitable returns directly his dressing machinery is erected, which will be during next summer.

Red Rock, 2½ to 3; the letters of allotment were issued yesterday. The number of shares applied for is reported to have been far in excess of the amount asked for. The manager states that he has made good progress in putting all things in order for a vigorous working of the mine, and that the prospects are good. Plenty of hands have been secured, and the works will be steadily pushed forward. St. Harmon, 3½ to 3¾; several favourable changes are reported. West Goginan, 1½ to 2; a meeting was held on Thursday to sanction the issue of 2000 preference shares to provide means for opening out the mine in depth, and the bulk of these shares are said to have been subscribed for by the members present. The manager stated that the prospects had improved. Great Dyliffe, 4 to 5; the mine has greatly improved. There are four levels driving in the bottom of the mine, worth together from 700 to 750 per fathom. Ashtetter, 1 to 1½; the last sampling left a profit of 2000; the mine is opening out well. West Ashton, 1½ to 1¾; a further important improvement has taken place at the point of development nearest Tan-y-Bwlch, and the agent looks for additional discoveries in this direction.

Pateley Bridge, 2½ to 3; the workings on the Lumb vein, in the 10, have been suspended, owing to the refusal of the men to take the bargains at the price offered. The Rake vein, on the 30, is 6 ft. wide, very promising, and the end approaching under the rich deposit of ore left by the last workers. The 20 cross-cut towards the Lumb vein is being steadily pushed on. No other change reported. At West Pateley, the north-west end at the 56, on Craven Cross vein, is presenting favourable indications for a speedy improvement. The stope east of No. 2 shaft is worth 1 ton per fathom. Other parts unchanged. Pennerley, 1 to 1½; the 130, east on Big Ore lode, has further improved, and is worth 1 ton of lead ore per fathom, with every prospect of a future improvement. Other points without change. The company have sampled 60 tons of lead ore, for sale next week.

Subjoined are the closing quotations:—Ashtetter, 1 to 1½; Corn Barren, 40 to 42; Devon Great Consols, 4½ to 4¾; Dulcote, 40 to 42; East Caradon, 1 to 1½; East Van, 8 to 8½; Glyn, 2½ to 2¾; Great Laxey, 20 to 21; Great Vor, ½ to ¾; Great West Van, ¾ to 1; Hingston Down, ¾ to 1; Leadhills, 6½ to 7; Mariner Valley, 1½ to 1¾; Parys Mountain, ¾ to ¾; Pateley Bridge, 2½ to 3; Pennerley, 1 to 1½; Penstruthal, ¾ to ¾; Roman Gravel, 1¾ to 1½; Tankerville, 8½ to 9; Tincroft, 20 to 22; Van, 38½ to 39; Van Consols, 1½ to 2; West Ashtetter, 1½ to 1¾; West Basset, 4½ to 5; West Chiverton, 18 to 20; West Tankerville, 1½ to 1¾; Wheel Crebor, 2½ to 2¾; Wheel Grenville, 18 to 20; Wye Valley, 5½ to 5¾; Almaden and Tinto, ¾ to ¾; Argentine, 6 to 6½; Birsay Creek, ¾ to ¾; Cape Copper, 38 to 40; Cedar Creek, ¾ to ¾; Chontales, ¾ to ¾; Colorado Terrible Lode, 1 to 1½; Condes of Chilli, 5 to 5½; Don Pedro, ¾ to ¾; Eberhardt and Aurora, 8 to 8½; Emma, ¾ to ¾; Exchequer, 1½ to 2; I.X.L., 3 to 1½; Flagstaff, 3 to 1½; Frontino and Bolivia, 1½ to 1¾; Javali, ¾ to ¾; Kapanga, 4½ to 5; Malpasso, ¾ to ¾; Malabar, ¾ to ¾; New Pacific, ¾ to ¾; New Quebrada, 3½ to 3¾; Pasternaca, ¾ to ¾; Plumas Eureka, 2½ to 2¾; Rica, ¾ to ¾; Richmond Consolidated, 9½ to 9¾; St. John del Rey, 30 to 34; San Pedro, ¾ to ¾; Sierra Buttes, 1½ to 1¾; South Aurora, ¾ to ¾; Sweetland Creek, 3 to 3½; Teonoma, ¾ to ¾; United Mexican, 2½ to 2¾; Blue Tent, 3 to 3½; Oregon (pref.), 4 to 4½.

COLLIERIES.—Dealings in these, as in all other shares, have been anything but numerous; the excessively wet and depressing weather seems to have the effect of damping the spirits of investors almost as effectively as it damps the investors themselves. Signs of improvement in the coal and iron trades may readily be seen by those who study the matter at all, and those who do not study it will, no doubt awake to the fact sooner or later, and will then mourn the lost opportunities of investing in good concerns at a low price. We hear from Altamir that, though the weather has interfered to some extent with the progress of the tramway, no material delay will occur in its completion. The company is now in a position to increase its out-

put as soon as the new engines are erected. The shares are at 5 to 5½. Llay Ha II, 9½ to 10; the drivings into the main coal are reported as making good progress, the thickness of the seam being well maintained, and no dirt partings or faults have been, so far, noticed. The permanent workshops and other buildings are in satisfactory progress of erection. Our report from Chapel House is as favourable as usual. The new works are being pushed on with all speed, and the demand for the company's coal continues to exceed the supply. Prices in the district have risen, and the tendency is still upwards. The shares are quoted at 3 to 3½, but very few have changed hands, holders and would be purchasers probably waiting for the holding of the general meeting, which we hear is to take place during the present month. Thorp's Gawber are weak at 2½ to 2¾; we understand that the colliery is looking well, and only a rise in the prices of coal is necessary to enable it to do well. The drop in the prices of the shares arises only from the preference of shares not having been as readily subscribed for as was anticipated. Felsall Coal and Iron are at 8 to 9, and are rising in consequence of a determination of the shareholders to develop a new class of business—that in the finished iron trade. New Sharlston are firm at 4 to 4½, and there is a scarcity of the shares. In West Mostyn there is no business. It may be well to remind our readers that the mortgage for interest in this company expires on Jan. 1 next. The preference shares are quoted nominally at 2½ to 3½. Bilsons are at 7½ to 8. Newport Abercrombie, 4½ to 5½. Cardiff and Swansea firmer at 1¾ to 1½. Aldridge, 4 to 6 prem. Cannock and Huntington, 4. Cannock Wimblebury, 11. Hamstead, 9. Ivy House, 10. Sandwell Park, 24. Spon Lane, 3 to 3½. West Cannock, 19½.

At Redruth Ticketing, on Thursday, 1544 tons of copper ore were sold, realising 7108 11s. The particulars of the sale were—Average standard, 102 1s.; average produce, 7½; average price per ton, 4 12s.; quantity of fine copper, 111 tons 5 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Nov. 2.	1193	108 17 0	7½	4 2 6	13s. 11d.	67 12 0
Nov. 2.	3794	105 10 0	7½	4 13 0	13 7	67 12 0
Dec. 7.	1341	102 1 0	7½	4 12 0	12 9½	63 18 0

Compared with the last sale, the decline has been in the standard 3 18s., and in the price per ton of ore about 6s.

At Swansea Ticketing, on Tuesday, 2639 tons of copper ore were sold, realising 25,481 1s. 0d. The particulars of the sale were—Average standard for 9 per cent. produce, 95 6s. 4d.; average produce, 13 13-16; average price per ton, 10 0s. 8d.; quantity of fine copper, 364 tons 10 cwt. The following are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Nov. 2.	1193	108 17 0	7½	4 2 6	13s. 11d.	67 12 0
Dec. 5.	2639	105 6 4	13 13-16	10 0s. 8d.	14 6	72 10 0

Compared with the last sale, the decline has been in the standard 3 17s. 6d., and in the price per ton of ore about 10s. 6d. The Cape ore gave an average produce of 25 13-16 per cent., and sold at an average of 20 2s. 6d. per ton, or 15s. per unit of fine copper, being about 17 better standard than that for the whole sale. On Dec. 19 there will be offered for sale 1274 tons, from the Betts Cove, Union, Cronebane, Tigrony, and elsewhere.

The TAN-Y-BWLCH MINE sold this week 100 tons of lead ore, at 15 10s. per ton, making a total of 15500. The copper and blende are not included in this sale. The vein has been cut in the 90 cross-cut, and the dump and the cross-cut have been communicated. The vein is richer than it has been at any time during the sinking, and there is no doubt of the 90 opening up splendidly. The 70 west has come into some nice lead and copper, and there is every likelihood of further improvement as the level is advanced.

ROCKHOPE.—The 42 fathom level is driven beyond the first rich winze, and within 8 fathoms of being direct under the Gin shaft. The end is better for ore than at any time before in this level, which, it must be remembered, is being driven below the productive sill. In rising between the 42 and 25 fm. levels good ore ground is expected to be opened, and this rise will be commenced in a few weeks. The ore ground in the upper levels looks well. By the end of February the returns are expected to be increased to 40 or 50 tons per month, and in the meantime there will be 20 to 25 tons monthly. As the ground between the 25 and 42 is cut out, and particularly where the richest winze below the former level is, considerably larger returns may be looked for, and that at no distant date.

DERWENT LEAD MINE.—This important property continues to progress in a satisfactory manner. The ore lately met with in the 70 cross-cut appears to be only a branch, valued at 15 cwt. of rich ore per fathom, a strong indication of the Sun vein proving rich in the little limestone, where it is daily expected to be cut. The middle vein is looking better at the furthest point eastward, and if the stopes in the back are as good as they extend east (as there is every prospect they will be) the returns will be considerably augmented from this source alone. The mine throughout is opening well, and will be one of the most valuable lead mines in the country in a short time.

TANKERVILLE.—They are raising good piles of rich ore, principally from the bottom. About 60 tons have been raised, dressed, and put in the bin during this week. There were sold on Thursday 150 tons of lead ore at 16 3s. 6d. per ton, realising 2420 5s.

GREAT DYLIFFE has much improved in the bottom levels, which augurs well for the future prospects and returns of lead ore. The different ends are worth in the aggregate 700 to 750 per fathom, as may be seen from the manager's report in another column. The shares, at 4 10s. to 4 15s., may be considered a good investment.

THE SILVER MARKET.—The price of silver last quoted—56d.—is an encouraging matter for all the great silver-producing companies, being an advance of 8d. per 100 on the price ruling last May, the two quotations constituting a difference of about 20,0000 on the yearly produce in silver of the Richmond Mine.

The Rio Tinto Company have announced the numbers of the Seven per Cent. Mortgage Bonds which were drawn on Dec. 1, for payment at par. The drawn bonds will cease to bear interest on Jan. 1, and after which date they will be paid either at the offices of the Société Générale du Crédit Industriel et Commercial, 72, Rue de la Victoire, Paris, or at the Rio Tinto Company's office in London. Bonds to be paid in London must be left three clear days previously for examination.

Vice-Chancellor Hall has appointed Mr. F. B. Smart (F. B. Smart, Snell, and Co., accountants, Cleasdale) official liquidator of the Belfast and Carrickfergus Salt Works (Limited).

Petitions have been presented to the High Court of Justice for the winding up of the Phosphate Sewage Company and Pinto Silver Mining Company.

Creditors of the Gelle Gas Company (Limited) are to send in their claims to the official liquidator, Mr. A. Lass, Gracechurch-street, on or before Dec. 11.

The directors of the National Provincial Bank of England have declared a half-yearly dividend at the rate of 8 per cent. per annum, and a half-yearly bonus of 6 per cent., being together at the rate of 20 per cent. per annum.

DAVID FORBES.—Regret will be very generally felt to learn that Mr. David Forbes, F.R.S., died on Tuesday. He has long occupied a prominent position in the scientific world, and had had considerable experience as consulting engineer to various English companies engaged in mining and metallurgical undertakings. He was elected a Fellow of the Geological Society in 1853, and was secretary thereof for the current year. He has also occupied the position of foreign secretary of the Iron and Steel Institute almost from its establishment, and his periodical records of the progress of the iron and steel industries in foreign countries have been of inestimable value to the ironmasters and steel manufacturers in this country.

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Mr. H. SEWELL, M.E., F.R.G.S., will reach London, via New York, in two months time, bringing with him particulars of some rich Mining Properties. He has contracted in Chili for Copper, Silver, Gold, Cinnabar, Nickel, and Silver-lead Properties. About December any cablegram will reach him addressed Lima, Peru.

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40 Derwent, £4.	25 Mariner Valley, £13 6s.
200 Don Pedro, 7s. 3d.	60 Malabar, 7s. 1s. 3d.
15 Eberhardt, 48 3/4.	40 Malpasso, 10s. 3d.
10 East Van, £8 1s. 3d.	15 New Quebrada, £3 14s
25 Exchequer, £2 2s.	35 North Laxey, 13s.
20 E. Caradon, £1 6s. 3d.	15 N. Zealand Kapanga,
50 Frontino, £1 13s.	47 3/4.
30 Glenroy, £2 3/4.	10 Pennant.
25 Glyn, £2 8s.	80 Port Phillip, 12s. 9d.

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THE IRON TRADE.—(Griffiths's Weekly Report).—Friday Evening.

The Glasgow market for Scotch pig-iron closed this afternoon firmly with buyers at 58s. 4½d.; this is about 1½d. lower than the price this day week. We quote makers' No. 1 iron:—Gartsherrie, 66s. 6d.; Coltness, 71s.; Calder, 66s. 6d.; Langloan, 67s.; Summerlee, 68s. 6d.; Monkland, 69s. 6d. f.o.b. Glasgow; Glenear neck, 64s.; Ellington, 69s. 6d. f.o.b. Ardrossan; Shot's, 65s. 6d. f.o.b. Leith; Kennel, 61s. f.o.b. Boness. The trade here has become a little monotonous; the consumers at our great workshops on the river and elsewhere are more alive to the hardening state of our market, but as all our leading engine and machine constructors buy nothing but best iron, and the makers of this class of iron, as a rule, refuse to book orders for longer than a month or two ahead, our business has not been large this week. The disposition to buy for forward delivery increases, even with the solid class of consumers above referred to. The leading Staffordshire and Yorkshire houses have been working all the for such slender profits that they cannot now risk the probability of being caught with heavy forward contracts and the corollary of advanced prices. This remark applies with greater force to the leading houses of North and South Staffordshire, Robert Heath and Son and the Shelton Bar Company have both refused large orders for forward delivery for plates this week. The business done here is principally in sheet-iron and nail rods, for which two sorts the market is sustained. Hoops, small rounds, and squares are in slow demand. The market is more regular for all second-class qualities. Tin-plates are in better demand, and as we are now getting to the close of year, we still say that a better trade, and much better prices will soon be obtained for all brands of tin plates. Some large sales of hematite pig-iron have been made by the smelters on West Coast this week. Stocks here are now much reduced at the works. This remark applies also to the great establishment at Barrow-in-Furness. We nothing of special interest reported this week either from Glasgow or any of the provincial iron exchanges. These markets are all quiet, but for the best iron very firm.

HALIFAX.—Dec. 7: The following quotations are from Mr. J. H. Thackrah's

list:—Halifax and Huddersfield Union Bank, 29½; Halifax Joint-Stock Bank, 30½; Halifax Commercial Bank, 24½; London and Yorkshire Bank, 24s. 6d.; John Crossley's, 11; Whitworth and Co., 7½; Bradford Brick and Tile, A. 14; ditto, B. 5; Ripponden Commercial, 10; Yorkshire Boiler Insurance Co., 22s. 6d.; Norton Brothers, 8; Meekmoolyke Manufacturing Company, 4; Steele Steam Shipping Company, 12.

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt; it then forms an accumulating useful work of reference.

KEELEY MOTOR—TRUSS ELECTRO-DYNAMIC ENGINE.—It would no doubt interest many of your readers as well as myself to hear what has become of the Keeley Motor, on which a letter appeared in the Journal of Oct. 18, 1876, and also if the Truss Electro-Dynamic Engine has been usefully applied yet; or whether both these much-to-be-desired prime movers have turned out all gas. Perhaps some of your correspondents can give the latest news, and oblige—M. E.

MR. C. S. RICHARDSON, writing from Alma, Park County, Colorado (Nov. 17) says:—"We have here on the Cross and Lincoln Mountain over 100,000 tons of ore, carrying from 15 ozs. to 30 ozs. of silver already mined and thrown away on the spoil heaps for want of some cheap system of reduction. Here is a fine field for the nascent process operation."

Received.—"H. B." (Ontonagon)—"D. R." (Georgetown, Colorado)—"J. P. S." (Valparaiso): See p. 1332, Supplement to last week's Journal: Gold Mining in Chili—"H. P. G." (San Francisco)—"Amateur"—Leeds—"Shareholder" (Greenock)—"J. L."—"W. B. M."—"E. K." (Coventry): The old company has been dissolved, and a new one formed. As a shareholder, "E. K." will receive the particulars.

THE SUPPLEMENTARY SHEET.—We have received occasional complaints, and put in a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

IMPORTANT NOTICE—REDUCTION OF POSTAGE ON THE "MINING JOURNAL."—In consequence of the new POSTAL CONVENTION, which came into operation on July 1, the postage of the *Mining Journal* to many countries will be reduced to one fourth. Henceforth the subscription will be £1. 10s. 4d. per annum (39 frs.), postage included, for the following countries. The amount will, if desired, be collected at the subscriber's residence at the end of each year. The subscription continues until countermanded:—Austria, France, Belgium, Denmark (including Iceland and the Faroe Islands), Egypt, Germany, Gibraltar, Greece, Heligoland, Italy, Luxembourg, Netherlands, Norway, Portugal (including Madeira and the Azores), Roumania, Russia, Serbia, Sweden, Switzerland, United States, Malta, Turkey, Morocco, Tunis, and the Canary Islands. Spain £1. 10s. (50 frs.)

AMERICAN SUBSCRIBERS.—In reply to several enquiries, it may be stated that subscribers in the United States can be supplied with the *Mining Journal*, post free, at the price of \$5.00, gold per annum, payable in advance, by remitting to Mr. D. Van Nostrand, publisher, and importer of scientific books, &c., Murray-street, New York; or, direct to our Office, 26 Fleet-street, E.C.

* * * **LECTURES FOR PRACTICAL MINERS.**—Immediately on the completion of the reports of Prof. SMYTH'S Lectures (of which only three or four remain unpublished), a series of careful reports, specially prepared for the *Mining Journal*, from notes taken by Mr. J. CLARK JEFFERSON, A.R.S.M., Whitworth Scholar, and formerly Student of the Clausthal Mining School, of the Lectures there delivered, will be given. The series are very complete, and will be highly valuable for the sound technical matter which they contain.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, DECEMBER 9, 1876.

THE ASSESSMENT OF IRONWORKS AND COLLIERIES.

MR. C. R. M. TALBOT, M.P., the Lord-Lieutenant for Glamorganshire, and formerly a Chairman of the South Wales Railway, has just sent to the local press a most valuable paper in reference to the recent valuations of the various ironworks, manufactories, and collieries in that important mining county. Many of his remarks, however, are applicable to such works generally in any part of the country; and coming from a gentleman of such vast experience and knowledge, deserve the serious attention of all interested therein. As proof of his competency to form an opinion upon the subject upon which he writes, Mr. TALBOT says—"I have probably larger opportunities of forming an opinion on subjects of valuations and values than occur to most men. When I was Chairman of the South Wales Railway all the valuations of property, and every description of rights, passed through my hands in settling the purchase through the counties of Gloucester, Monmouth, Glamorgan, Carmarthen, and Pembroke, and the general result of my dealings with professional valuers is a belief that an *ex parte* valuation is of little or no practical use, but, on the contrary, is often misleading and deceptive." After such great and varied experience no one, we presume, will doubt that Mr. TALBOT is most fully competent to speak with authority, and the opinion he has arrived at fully confirms that which has long since been felt by the proprietors of manufactories, iron and steel works, and collieries—i.e. that their properties are unreasonably assessed by valuers, and endorsed by the various rating authorities, who often have no especial knowledge of the points at issue, and no regard for the exigencies of trade which so frequently arise.

When alluding to the assessment of the Glamorganshire works and collieries some two or three weeks ago, we stated that Mr. HEDLEY, of St. Helens, had made the fatal mistake of rating the works as in full working and profitable occupation, and remarked that "probably the case would never have been brought forward at all if the proper preliminary and necessary enquiries had been made before the valuation as to the present state and future prospects of the iron trade." Mr. TALBOT, who from his letter has evidently made searching personal enquiries at several of the leading works, now endorses the opinion we thus expressed, for he says—"I believe I am right in saying that Mr. HEDLEY arrived at his estimate without that careful enquiry into facts which ought to precede the exercise of an authoritative decision on the value of manufacturing, mining, and commercial property."

The valuation of mines, works, and collieries for rating purposes is far more important than the public generally feel disposed to accord to it. Nay, we question whether it is not often overlooked by the proprietors themselves when first making the purchases of the works, or making fresh outlays in enlargements. When the iron, steel, patent fuel works, manufactories, and collieries are situated near cities or towns, and within the area of urban rating districts, the rates paid the rating authority, together with the *poor rates*, forms a formidable item indeed. We know that in one or two of the heaviest rated districts in the kingdom the local taxes amount to from 7s. to 10s. in 14 up in the rent, so that proprietors should remember that the rates are at least a third of the rent. It must be evident, therefore, to the most superficial mind that the rating of these works and collieries forms a most material element in their successful management, and as the prosperity of the country depends to a very great extent upon the prosperity of our ironworks, manufactories, and collieries, we can see no valid reason why they should be more heavily weighted with local taxes than the mansions of the nobles and aristocracy, or the business of the successful tradesman or merchant.

There is unquestionably a tendency to enormously increase the assessment of ironworks and collieries upon the slightest pretext, and the prosperity of the mining industries a few years since was too tempting a bait to be resisted by the rating authorities. Hence, in many districts all kinds of properties connected with the staple trades have been doubled for the purposes of taxation. And it should be remembered that when once the higher basis has been established it is very much like the inflexible laws of the Medes and Persians of old, which were said to never change. At all events, the difficulty of obtaining any reduction in the rating assessment is enormous, and when attempted involves costs which may well deter any but the most wealthy. These frequent re-valuations of manufactories and works are, to say the least, exceedingly inconvenient and irritating, causing vexatious annoyance, loss of time and expense to the proprietors, which should be avoided except under the most pressing necessity. We seldom or ever hear of anything like united agitation amongst the proprietors of works or colliery proprietors for reduction of taxation even in the most depressed state of trade, and we protest, therefore, against these constant increased assessments of works and collieries upon the least pretext. The proprietors of works are willing to pay upon an

equitable basis of value, and certainly this is not the time to seek an advance.

The process by which the valuation of works and collieries is attained is also open to question. Mr. TALBOT endorses the opinion of one of the most able valuers (and all acquainted with the subject will do so also) when he says—"The man does not exist who can value mines, mills, docks, manufactories, collieries, chemical works, and railways. It is absurd to suppose that because a man calls himself a surveyor or valuer he can go fresh to any one of these complicated properties, and by an inspection of it, and such information as he can pick up, pronounce upon its value, and that a committee of gentlemen should thereupon adopt what he says." But how often have the large manufacturer and the colliery proprietor found to their cost that this is the very thing that has been done. The opinions and the sworn testimony of those engaged in the works or colliery is often set aside, and the evidence of the proprietor ignored, as being that of interested persons, and the mere theory or belief of the professional valuer adopted as the basis of future rating until some new crotchet arises, when the assessment is again raised by the same process. We have repeatedly urged that an equitable basis for rating purposes can never be ascertained by the fluctuation of business, nor will satisfaction be given to our works and colliery proprietors so long as the present system of valuation is adopted. It must be evident that the most able valuer who ever lived cannot be so conversant with the many exceptional contingencies which every now and then arise in the prosecution of the work as those daily associated therewith. It is paying, therefore, but an ill compliment to these gentlemen when assessment committees practically disbelieve them, and place implicit faith and confidence in the opinion of a valuer simply because he is styled a professional man. There is a tendency throughout the whole country at the present time to largely increase the value of manufactories, works, and collieries for rating purposes, notwithstanding the acknowledged depression of trade, and the opinion of such a gentleman as Mr. C. R. M. TALBOT at such a juncture is most valuable, inasmuch as it is that of a gentleman who has had great and varied experience as any man in the country, and who is, therefore, in every respect fully competent to speak with weight and authority.

SEARCHING FOR MINERALS, &c.

Of late years minerals have been sought for and found in localities in which such were not laid down on any of our geological maps, or noticed by our ablest geologists. But, on the other hand, they have been looked for in districts where a knowledge of geology would have shown that it was impossible that they could be met with. Only last week we announced the discovery of valuable beds of ironstone in Ireland, of which there was not the slightest notice in the maps of the Geological Survey, whilst we know many other districts in a similar position. Not so long since, whilst visiting Northampton, we noticed close to a small town that the roads were mended and laid with ironstone having upwards of 40 per cent. of metallic iron. Our reference to it at the time had the effect of drawing attention to it, and it is now being raised in considerable quantities, and furnaces are being erected for smelting it. In Lincolnshire the vast field some hundreds of square miles in extent was discovered by accident, and what was once a vast waste tenanted principally by rabbits is now one of the most promising centres of the iron trade we have, and should coal be found in any quantity in the county—of which there is the strongest probability—the Frodingham district will become a rival in every way to Cleveland, seeing that it has every necessary outlet for the transport of its produce both by railway and water. In some localities coal has been found where it was not expected even by our ablest geologists, and of which the geological maps gave no indications. This was the case near to Nottingham in what may be termed the boundary of the Midland coal field. In Staffordshire the 10-yard coal has been proved through the energy of an able mining engineer, whilst in the far North of Scotland coal has been met with, and is now worked on the estate of the Duke of SUTHERLAND.

It is admitted that, in addition to our known coal fields, there are vast quantities of that mineral concealed below Permian, Triassic, and Liassic strata outside the existing boundaries of the former, but which will be met with and reached in all probability unexpectedly. Mr. GODWIN-AUSTEN and others consider that the coal measures will be found beneath the cretaceous rocks lying between the coast opposite Calais and the Somersetshire coal field. In many other parts of the kingdom there is very little doubt but what coal will be found where least expected, so that the duration of our coal fields will be found to extend over a great many more years than has been predicted by some of our most eminent geologists. The same will also be the case in other parts of the world—in India, New Zealand, and on the American and European continents. In nearly every instance the deposits of strata bear a strong affinity to each other.

In the North of France the coal is found underlying the magnesian limestone, in Sweden below the liassic, and lying upon the red sandstone and clays, probably triassic. In almost every district the coal is found resting on clay in England, with the same identical fossils. Indeed, the fossils are the best of land marks, and the most reliable data that we have, for by them the same rocks are identified although widely separated. At the present time borings are being made in Lincolnshire and other counties where the geological map gives no indication whatever of the presence of coal, and with every prospect of success. As a matter of course there are vast areas where coal does not exist, and others where it is such a depth as to make the sinking to it impossible. The latter, for instance, is to be found with respect to the plain of Cheshire, where coal undoubtedly is, but to reach the highest workable seam at Northwich it would be necessary to carry the existing shaft, which goes down to the great salt rock, at least 4000 ft. lower. But the practical man will know the likeliest place where to bore to with a fair chance of success. In many instances, however, sinkings and borings have been made that have turned out the reverse of what was anticipated.

But this may be attributed in a great measure to the ignorance of the persons who hunted after an impossibility, and of this we could give many illustrations. Near to Tiverton, in Devonshire, a shaft was sunk in the shales of the millstone grit, in the expectation of finding coal. Work was pushed forward in the hope of reaching the black diamonds, but without success, until one Sunday, when, as the people were returning from church, it was announced that coal had at last been found, and all rejoiced exceedingly at the news. Great, indeed, was the joy of the entire community when on Monday morning the miners brought up some coal of excellent quality, and the church bells sent forth merry peals. It turned out, however, that some boys had emptied a scuttleful of coal into the shaft, on the top of which they threw some of the rubbish at the surface.

In the Forest of Dean carboniferous limestone shale is at least 1000 ft. below the lowest bed of coal; yet in Herefordshire a gentleman believed that the coal could be reached at a moderate depth, and built an engine-house, sheds, and the necessary buildings to carry on an extensive trade. Of course he was greatly disappointed, and could not bear to hear the word coal mentioned. It was only a couple of years or so since we exposed a similar failure and attempt at imposition. It took place at Epworth, in Lincolnshire, where a lady engaged a sinker to bore for coal. He worked diligently for some time, drawing his wages weekly. At last he brought to his employer some pieces of coal which he said he had brought out, and then took his departure with the usual *docteur*. It turned out, however, that the coal was first put down by the sinker before he drew it up, so that the bore-hole still remains as it was left at that time, and the lady is now resigned and satisfied as to there being no coal on her estate at an easy depth. Then there was the shaft which was sunk at Kingsthorpe, near Northampton, to a depth of nearly 500 yards, on the expectation of coal being found, and allusion to which has been frequently made in the *Journal*, still with all these failures coal will be met with, as we said before, in localities where previously there had been no knowledge of its existence, so that in our opinion the area of our coal-field cannot be defined. Petroleum, which is destined to play a very important part as a generator of heat, was unknown until a com-

paratively recent date, so were the mineral oils of New Zealand, one of which is a true paraffin. These discoveries have been invaluable, and we have very little doubt but what new and undefined fields of coal will also be met with in various parts of the kingdom.

THE IRON TRADE.

The information which continues to reach us relative to the great iron making industry of the United Kingdom is at once cheering and depressing, cheering because of its elasticity and progress, and depressing because so little profit attends the prosecution of the industry. But an industry on which so much business capacity and so comprehensive a grasp of the elements of national success are demonstrated cannot long be under even such a cloud as that which is now passing across its face. Happily the cloud is moving, and the ironmasters are doing their best to accelerate its pace.

We drew the attention of our readers to the October returns of the Cleveland Ironmasters' Association. The facts then brought out were generally surprising, but we venture to say they were less so than are the facts which are to be evolved from the returns for November. Those statistics showed an increase in the make of pig-iron as compared with November last of 6000 tons, yet a decrease in stocks upon last October returns of no less than 4000 tons, and the makers of forge iron still declare themselves to have as much to do as they are able to meet the requirements of their customers. That all this should be so at a time when the Baltic ports are closed is highly satisfactory. It comes about at a time when decidedly more vigour is being displayed in the neighbouring district of Scotland—a market to which great quantities of Cleveland iron have long been going. We have no doubt that an analysis of the returns would prove that the home consumption has considerably increased in the immediate neighbourhood of the furnaces. By no means dismayed by their misfortunes arising out of the almost annihilation of the iron rail trade, the northern ironmasters have given themselves to the production of plates and angles for shipbuilding, and of similar classes of iron to meet the vast requirements of the London market for home use and for export. In these departments of the finished iron industry they have been greatly successful. The success may have now and again showed itself in getting an advantage at the cost of some other home district, but not a little of it has been accompanied with evidences of a much more satisfactory nature. Cleveland enterprise has largely checked the importation into this country of Belgian iron, and we shall be greatly mistaken if this does not appear with increasing conspicuousness.

Startling things are being said of the capacity of certain southern portions of the United States for making good iron at a very cheap rate, but Cleveland possesses in its iron hills, its adjacent coal fields, and the wealth and energy of its traders, the means of producing excellent pig-iron at rates and in quantities at present impossible elsewhere throughout the whole world. If, by-and-bye, Lincolnshire should attain the ambition which possesses it, and should become a rival in these respects to Cleveland, all the better for England. We are concerned for no locality, but speak of the most prominent of the districts as representative of the whole industry. And if Cleveland can show such a front in relation to the pig trade there is no reason why it should not avail itself of all those advantages to improve its position as a mill and forge neighbourhood. The steady progress which Cleveland has made in that direction it continues to make, for the conversion of rail mills into mills for rolling not only ship plates, but likewise girder and bridge plates and tank plates, is making steady progress. When all has been done in that respect which is certain to be done in Cleveland, then, in the matter of finished iron, we have little doubt that the time will have passed when the English public will have placed before them sensational announcements about large sales of Belgian iron at the doors of English ironworks.

All this energy and progress is occurring simultaneously with well-directed efforts by ironmasters, than whom the world knows no superior, for otherwise economically utilising the native products of Cleveland in the production of an article of commerce which, of itself, if the effort should be successful, would restore Cleveland's fame in the rail-making world. The issue of those experiments may or may not be success. In either case the future of the Cleveland district should be increasingly satisfactory. Its leading men are not only in the manner we have indicated giving practical attention to business details inseparable from success and progress, but they are allowing no opportunity to pass by for promulgating elsewhere sound commercial views, which if they should be as thoroughly recognised elsewhere as they are throughout our own land, would immensely benefit the British iron trade; indeed every other of our native industries. We need hardly again urge upon the British Iron Trade Association to keep earnestly at work in all these directions, for we are satisfied that little short of brilliant success awaits them. It is certainly distressing for Cleveland and for South Wales that, as is more than likely nothing short of 2,000,000, has been lost in the past two years by rail-making firms in these two leading rail districts of the United Kingdom. Nor is it much less so that the prices which at present the market will alone bear like as to pig and to rolled iron. But the profligate terms upon which so much business is now being done in the iron trade of all the districts, not of Great Britain alone, but likewise of the whole iron-making world, are, speaking in the aggregate, becoming gradually less conspicuous, and the day is not very remote when the deal shall no longer eclipse any portion of the face of an industry around which nearly every other revolves, and to which nearly every other is indebted for the means of its prosperous existence.

BRAZILIAN GOLD MINING COMPANIES.—A Bill has been passed by the Provincial Assembly (Parliament) of Minas Geraes, where most, if not all, of the English gold mining companies have their works, imposing a tax of 4 per cent. upon the gross amount of the gold extracted from the mines. In some instances such a tax would probably be the cause of shutting up the works of struggling mines. This matter is considered so important that Mr. Gordon, of the St. John del Rey Company, made a special journey to Ouro Preto to make representations to the President of the Province, but there is very little doubt that the Assembly will exercise their right to raise revenue by the tax within their own borders, and insist upon it being paid, with the arrears, amounting to a large sum. In the estimates of the province, credit has been taken for the amount thus to be raised. The policy of such a tax, however, is extremely doubtful.

PATENT LAW IN GERMANY.—A bill has been prepared for introduction into the German Reichstag which for a long time has been in the patent laws of Germany. It is well known that in Prussia it has long been most difficult to obtain protection for even the best authenticated discoveries. The new bill provides that patents may be granted for a term of 15 years. For each patent 30 marks are to be paid as soon as it is granted, but for inventors are all and a delay not exceeding two years. At the beginning of the second year 50 marks must be paid, and 50 marks more every succeeding year. Any person having used an invention before it was patented may continue to use it without making any payment to the patentee. The latter is, however, bound to permit its use to anyone who will pay for it. Refusal to concede this right entails loss of the patent privileges. The Patent Office is to have the right of publishing all descriptions and drawings in print, and any person may search the specification drawings and other documents in the office.

COAL AND IRON IN THE UNITED STATES.—Mr. Morris, the engineer of the Nashville, Chattanooga, and St. Louis Railway, reports that the Cumberland table land, west of the Sequatchie Valley, contains a coal field of vast extent. Mr. Morris has visited three mines with outcrops 7 to 10 ft. thick. In the course of the year ending Sept. 30, 1876, the Baltimore and Ohio Railway Company carried 1,187,289 tons of coal for the public, 1,115,813 tons being delivered in Baltimore. On the main stem of the Baltimore and Ohio Railroad 597 miles of track are now laid with steel rails. The aggregate production of anthracite coal in Pennsylvania to November 11 this year

amounted to 16,222,599 tons, against 18,018,198 tons in the corresponding period of 1875, showing a decrease of 1,795,599 tons this year. The aggregate production of bituminous coal in Pennsylvania to Nov. 11 this year was 3,159,202 tons, against 3,443,187 tons in the corresponding period of 1875, showing a decrease of 283,985 tons this year. The aggregate coal production of Pennsylvania to Nov. 11 this year was thus 19,381,801 tons, against 21,461,385 tons in the corresponding period of 1875, showing a decrease of 2,079,584 tons this year. The quantity of coal and coke carried over the Pennsylvania Railroad in the first 10 months of this year was 3,873,503 tons. There is no change in English canal coal at Boston; the sales effected have been made in small lots at \$16 to \$16½ per ton.

SALE OF MINERAL ORES.—A very interesting collection of silver ores from Chili and Bolivia was dispersed last week at Stevens's Rooms, Covent Garden. The prices realised were very high, one small specimen of red silver, about the size of an orange, bringing no less than 200l.; another about a quarter the size, with very perfect crystals, brought 100 guineas; and the remainder, consisting of about 100 small specimens, were sold at proportionate prices. These were some of the finest specimens ever brought to England.

REPORT FROM CORNWALL.

Dec. 7.—There were abundant rumours concerning the probability of a drop in the tin standards on Monday, prompted no doubt by the unpromising state of affairs in the East, and in sympathy with the depression felt elsewhere, and which more or less affected all kinds of general investments. However, nothing came of it then—and there certainly was no reason why there should—but on Tuesday there was a drop of 3s. This is decidedly likely to encourage the stocking system, for the depression can be but temporary.

There is no doubt that the trial of the borer of the Diamond Rock-Boring Company (not their Diamond borer, but their percussion drill by the way) at Carn Brea will be thorough and complete. The machine is to be at work by Jan. 12, and in the circular which Mr. Bolden, on behalf of Mr. Basset, has issued, that gentleman states that he "hopes that the subscribers will feel with himself that the present success of the Barrow drill at Dolcoath Mine, instead of being an argument against further experiments, affords the greatest possible encouragement for furthering competition, so as to improve and advance upon these benefits that, happily it has proved, machinery is capable of bestowing; and, that just as in the past, the prospect of this competition has at last stimulated the proprietors of the Barrow drill to a successful application of their machinery to the requirements of this county, so in the future we may reasonably hope that by competition we shall arrive at the largest results which this class of machinery is capable of bestowing on Cornish mining." Mr. Basset has not only given 300l. towards the 1000l. required for the trial of Major Beaumont's borer, but has guaranteed 211l. 6s., thus practically coming forward with the magnificent gift of 500l., though for the credit of Cornish mining it is to be hoped he will be relieved of the guarantee. The subscribers are:—Mr. Basset, 300l.; Lord Robartes, 100l.; Capt. W. Teague, 100l.; Mr. Pendry, 30l.; Sir F. M. Williams, Bart. M.P., 25l.; Mr. J. M. Williams, 25l.; trustees of R. Tyng, 25l.; Messrs. Bolitho, 25l.; West Basset Mine, 25l.; the Earl of Mount Edgcombe, 25l.; Mr. Pendarves Vivian, M.P., 20l.; Mr. Hawkins, 20l.; Messrs. Daubuz and Co., 15l.; Mr. F. G. Enys, 10l.; Rev. A. H. M. St. Aubyn, 10l.; Mr. J. J. Rogers, 5l.; Mr. J. H. Dennis, 5l.; Mr. A. Hingston, 5l.; Mr. Charles Fox, 5l.; Messrs. Bickford, Smith, and Co., 5l.; Mr. E. B. Beauchamp, 3l.; Mr. J. Wickett, 2l. 2s.; Lieut.-Col. Grylls, 1l. 10s.; Dr. C. Le Neve Foster, 1l. 1s.; and Mr. J. Henderson, 1l. 1s.

The strike in the china-clay business is so far at an end that large numbers of men have accepted the ultimatum of the employers and gone back to work, renouncing the Union. There are, however, some hundreds who still adhere to that organisation, and who declare they will return on no other terms. It is difficult to see how they expect to be successful. They have no funds to sustain a prolonged struggle, and in the present state of the clay trade the employers can very well afford to do with some scores, if not hundreds, fewer men than they were employing. It has been stated that the dispute arose in consequence of the masters curtailing the men's wages. Nothing could be more false. There was never any question of reduction of wages at all; but it was purely a fight—Union or non-Union—and all the efforts of the unionists were directed to coerce the masters by driving all the non-unionists into the Union ranks. Some of the men made no secret that when that was done the Union would regulate the price of bargains. It is perfectly idle, too, to suggest that the clay merchants should abandon competition and form a close combination to keep up prices. There are many purposes for which china-clay is used for which it would not be used if it were much dearer; and, in presence of a unionist struggle, all the employers could not be got to combine, it is perfectly certain that they could not for purposes of trade. Besides, they have not the monopoly that those who advocate this organisation seem to think they possess. Cornwall and Devon are, it is quite true, the only centres in England where china-clay is raised, but it is found in France and in America, and there seems every probability of a yearly increasing competition from these sources.

The second meeting in connection with the Mining Institute of Cornwall was held on Saturday, under the chairmanship of the President—Dr. Le Neve Foster. The rules were then discussed at considerable length, and generally adopted, as prepared by the President and secretary, Mr. Provis. They are substantially as follows:—The Institute is to be governed by a president, two vice-presidents, a council of twelve, and a secretary, three to form a quorum. Honorary members are to be elected to the number of ten. They are to be gentlemen who, although unconnected with mining, take an interest in the county, and are to be distinguished persons. The annual subscription for ordinary members is to be 10s. 6d., with a 5l. composition for life membership. After Jan. 1, 1877, every candidate for admission as an ordinary member must be proposed and seconded by two members, one of whom must be personally acquainted with him. Up to that date any persons desiring may become members by sending their names to the secretary. The president, vice-president, and four members of the council go out of office annually, and a vice-president going out of office will not be eligible for re-election to the same office. It was agreed that there should be a weekly meeting, at which there should not be papers read, but merely a friendly conversation on mining matters generally; also a monthly meeting, at which papers should be read and regularly discussed. These monthly meetings are to be held the last Saturday in each month. There is to be an annual dinner, and an annual excursion to a mine or mining district, and no share dealing is to be carried on during the meetings of the Institute. Dr. Foster having been appointed the President, and Mr. Provis secretary, at the previous meeting; Capt. Wm. Teague, jun., and Capt. Josiah Thomas were elected vice-presidents, while the following were chosen as the council:—Messrs. G. L. Basset, J. L. Bolden, J. H. Collins, S. H. F. Cox, James Evans, John Gilbert, Walter Pike, D. W. Bain, R. Southey, W. Teague, W. C. Vivian, and W. Hubbard. The inaugural dinner is to take place on the 18th.

The Vice-Warden has definitely laid down the law with regard to banker's claims, concerning which there appears to have been some misunderstanding. Mr. Fisher explained that he had laid down no new principle, but that which he had constantly acted upon in these cases. It was this. If a banker advanced money to a cost-book mine under a resolution pursuant to the Stannaries Act, 1869, passed in such a way as to bind all shareholders whether present or absent at the meeting the banker could claim against the mine in a winding-up, and the amount so advanced, together with all the banker's charges incident to the advance, and no obligation lay upon him to show that the money had been properly expended upon the mine. The same would be the result if, although there were no antecedent authority, there had been a subsequent ratification of the advance or acquiescence amounting to ratification on the part of all the shareholders. But if without such antecedent authority, or without any such ratification, a banker advanced money to the mine then the burden lay upon him to show that the money so advanced had been expended in the payment of the legitimate debts of the mine.

And having done this he would be entitled to prove for his advances, but only to receive simple interest upon them of 5 per cent.

THE BORING MACHINE AT DOLCOATH

Has now been at work for five months, with the most gratifying results. The ground opened up during that time has been as follows:—First month, 4 fms. 0 ft. 6 in.; second month, 5 fms. 0 ft. 8 in.; third month, 5 fms. 4 ft. 7 in.; fourth month, 5 fms. 2 ft.; fifth month, 6 fms.: total, 25 fms. 1 ft. 9 in., or an average of (say) 5 fms. 1 ft. 6 in. per month. In the level above, which was driven through ground of the same description, the average by hand labour was only 1 fm. 3 ft.; thus showing that the boring machine has actually accomplished three and a half times as much, on the average, as by the old method. And it is evident from the increased speed at which the level has been driven (shown in the above figures) that as the men become more familiar with their work it will yet be even more successful.

But many practical men are anxious to have an answer to this question—If the speed attained is great, is not the cost also great in proportion? A very fair and an important question, to which the following figures will give an answer, which we hope is as fair:—

Cost of coal, about	£14 0 0
2 enginesmen	6 0 0
1 engineer	5 5 0
1 and 1 boy (smiths)	6 0 0
3 underground men, at 8l.	£24 0 0
3 ditto, at 4l. 10s.	13 10 0
3 ditto, at 3l.	9 0 0
Underground cost, at (say) 22s. per ft., for 5 fms. 1 ft. 6 in.	48 10 0
Total	£113 10 0
Ground driven, 5 fms. 1 ft. 6 in., at 25l. per fm.	£131 5 0
Profit over hand labour	£18 15 0

It will be seen that all the cost of coal, enginesmen, engineer, and smiths is included in the above, against one machine at work; of course, these expenses would be proportionately less if more machines were used. —*Cornish Telegraph.*

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Dec. 7.—The condition of the Iron Trade in this district is unimproved. There is scarcely so good a demand for first-class finished iron, and medium and common qualities are difficult to sell, even when makers are prepared to accept quotations which leave them without profit. Pig-iron for immediate use is moving but slowly; some buyers of average qualities, both good and inferior, are disposed to buy forward at current rates, but they are not generally successful. Little or no improvement in other departments of the industry is looked for up to the close of the year. Coal is in largesupply than for months past, the men evincing a disposition to do as much work as can be found for them in the short hours that they demand shall alone constitute "a day," but the consumption is at a low ebb, and a manifest disposition to meet buyers' views as far as is reasonable does not stimulate transactions.

The committee of the South Staffordshire Ironmasters' Association held a meeting on Thursday, at the Queen's Hotel, Birmingham, to "consider what course should be pursued with regard to the several railway bills which are to be introduced in the next session of Parliament, and to arrange for the due protection of the South Staffordshire iron trade by a careful examination of their contents when published, and, if needful, by opposing them in Parliament." The result of the discussion was that it was considered desirable that the committee should place themselves in communication upon this subject with the British Iron Trade Association, the Chambers of Commerce, and other bodies of traders.

The value of mining and ironmaking property hereabouts, tested by the prices which the shareholders of limited liability concerns are prepared to take, is not increasing. Sandwell Park Colliery shares are going at 23l., but they are bought at that figure with tolerable readiness. West Cannock shares of 50l., with 20l. paid, are offered at ½ discount, and Spon Lane Colliery shares of 10l., with 8l. 10s. paid, are at 5 dis. Hamstead 20l. shares, 10l. paid, are offering at 1 dis. A recent excellent report by the Aldridge Colliery Company has improved that property in the market till there are now offers to buy the 20l. shares at 24l.; but shareholders decline to sell at much under 26l. The Pelsall Coal and Iron Company's 20l. shares, 15l. paid, are freely offered at 6 dis.; and Patent Shaft and Axletree shares of 20l., with 10l. paid, are changing hands at par.

For serious breaches of the Factory Act eight nail manufacturers were by the stipendiary at Sedgley on Monday mulcted in fines varying from 1l. to 3l. The accused were shown by the Sub-Inspector of Factories to have worked half-timers full time, or for seven till seven; neither had the children attended school. During Friday night two miners were killed at the Barrack Pit, Primrose Hill, making the third fatal accident in the Dudley district within a week resulting from a fall of coal. Joseph Neale and Samuel Ettle were at their ordinary employment when an immense mass of coal fell from the roof. They made an attempt to escape, but, although they got clear away from the falling coal, they were overtaken and suffocated by slack and dirt which came down with it.

At the pits in North Staffordshire there is slightly more doing; the pigmakers experience no difficulty in selling their restricted output, but it is very hard to dispose of as much pottery-mine as producers would readily sell. In the mills and forges there is, upon the whole, less doing this week than last, a little less activity in the bar mills being more than compensated by greater quietude in the plate mills.

Mr. John Jenks having held the important position of general manager at the Minerva and Beaver Steel and Iron Works of Messrs. I. Jenks and Son for 25 years, and having recently vacated that position, a deputation of the men (most of whom had been under the management of Mr. Jenks for a number of years) have presented him with a very handsome walnut Davenport writing-desk. Mr. William Moineux made the presentation.

REPORT FROM THE NORTH OF ENGLAND.

Dec. 6.—There is, on the whole, no decided falling off in the prospects for the better which have recently appeared in connection with the Iron Trade of the North of England. Merchants are showing some anxiety to place contracts for delivery over the first half of next year, and as makers have got their own ideas as to what next year will bring forth, while some of them are decidedly of opinion that short contracts are a source of safety, there is a tendency towards stiffer rates, which will very probably be maintained until the Christmas and New Year's holidays are over, when, in all probability, trade will take a more decided turn than it has yet done. Larger quantities of iron than usual are being sent to Scotland, although that country is, next to Cleveland, producing at the present time more iron than any other district of the kingdom, and is keeping up its output, while that of Wales and Staffordshire is declining. In Staffordshire only 56 furnaces are in blast out of a total of 149 built. In Cleveland, on the other hand, 110 furnaces are blowing, out of 160 available for use, and in Scotland, which has about an equal number of furnaces with Cleveland, upwards of 100 are now in operation. It will very probably be found at the close of the present year that while Cleveland has produced more iron than in any previous 12 months, the make of every other district in the United Kingdom has fallen off. With its present resources Cleveland is quite equal to the production of 3,000,000 tons of pig-iron per annum, which is nearly one-half the total production of Great Britain, and the production for this year is already over 2,000,000 tons, although one of the most adverse and disastrous years that the iron trade has ever known.

The Darlington Iron Company have obtained some additional orders for light rails which will keep them tolerably active with their small mills until the end of the year, and they are making preparations for going into the manufacture of heavy rolled girders—a class of iron the manufacture of which is now chiefly confined to Belgium. The estimated outlay in adapting the existing plant to this branch of production is from 8000l. to 9000l. The company will be thus introducing a comparatively new branch of manufacture into the North of England, and if it be found that the Cleveland

iron is well adapted for such work the Belgians, who import from Cleveland a great quantity of pig-iron to mix with their own, will probably find that they will have to reckon with a formidable competitor.

At the adjoining ironworks of the Skerne Company the manufacture of bridge building iron is still being carried on, and a fair quantity of work is on hand. Some time ago the directors of the Skerne Iron Company, desiring to confine themselves entirely to the manufacture of plates, made an effort to dispose of their bridge building department, and a company was actually formed to take it over, but as this company has failed to find the needful capital the Skerne Company have resolved in the meantime to retain the department in its own hands.

When the failure of the West Hartlepool Iron Company took place little more than a year ago it was rumoured that the works were to be acquired by Mr. I. Lowthian Bell, M.P., but up to the present time no sale of the works has taken place, and they are still lying idle, to the serious detriment of the trade of the town. I am, however, informed that if Mr. Bell's new process should turn out successful it is probable he will take over the West Hartlepool Works for the purpose of carrying it out. The matter is as yet rather indeterminate, but I may add as another somewhat significant fact, that Mr. Spencer, the late manager of the West Hartlepool Ironworks, and the patentee of a rotary puddling furnace, respecting which papers have been read before the Iron and Steel Institute and other societies, is helping Mr. Bell in the carrying out of his experiments. It may be added that the West Hartlepool Ironworks consist of three blast-furnaces, 116 puddling furnaces, a rail mill capable of turning out 42,000 tons of rails per annum, a plate mill capable of producing 10,000 tons of plates yearly, three large forge trams, and seven steam-hammers.

The Steam Coal Trade of Northumberland is falling into an exceedingly unsatisfactory condition. The Newsham Colliery has now been added to the number laid in, throwing idle some 300 men and boys. The High Pit at Cramlington and the Old Delaval F. Pit have also been laid in, throwing other 500 men and boys idle. The pits generally are working badly throughout the county. The owners are making arrangements for the introduction after the new year of the Welsh system of working steam coals, which the miners have fortunately decided to adopt rather than resort to the strike which some of them threatened.

A royal charter has now been obtained for the North of England Institute of Mining and Mechanical Engineers, which was founded on July 3, 1852, by Sir George Elliot, the late Mr. Nicholas Wood, and other leading men connected with the Durham coal trade. The membership of the Institute is now close upon 1000.

In Durham there is an active demand for gas coals, the shipments of which from Tyne Dock alone are now going on at the rate of 25,000 to 35,000 chaldrons per week. The better qualities of gas coal command 9s. to 10s. per ton, secondary sorts being quoted as low as 6s. There is also a pretty good demand for household qualities, which, however, have been less in request during the last few days, probably because of the extreme mildness of the weather. With the exception of the coking collieries the pits in Durham generally are putting in pretty fair time. Coke is quoted variously from 9s. 3d. to 11s. per ton at the ovens, according to quality, but the quantity of coke produced is not nearly so large as it was some time ago. The fact is that the remarkable profits made in this department of the trade some three or four years ago, when it was impossible to purchase ordinary qualities at less than 35s. to 40s. per ton, has caused over production, and now there are upwards of 2000 coke ovens completely idle, and most of them likely to remain so for a considerable time to come.

The make of pig-iron in the North of England for the month of November was 171,596 tons, or 6000 tons more than the make for November last year. Warrant stores have decreased by 1803 tons and makers' stocks by 2121 tons during the month.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

Dec. 7.—There is again no new feature to record in the Iron Trade, and we shall soon see the termination of a year of unparalleled depression. There is no improvement to be noted in any branch of the trade except that there is generally more doing in pig. Since last report several notices of reductions at various works in the district have been given. The employees of Messrs. Townshend, Wood, and Co. have received an intimation that they will have to begin the year at a lower scale of wages, and a similar remark applies to the men engaged at the Ystalyfera Iron Company's establishment, the notice also extending to the colliers. Several works at Ystalyfera and in the immediate vicinity are entirely stopped. These reductions will, no doubt, be received with resignation by the men, who may think themselves lucky in obtaining employment while so many of their fellow-workmen are in enforced idleness. Fortunately the weather has proved mild up to the present, or the distress which is now said to prevail among many employees would have been far greater. At the steelworks business continues fairly active. The Times, speaking of two new ironclads at present in course of construction at Pembroke docks, takes occasion to remark on the excellence of the steel plates, &c., manufactured by Siemens's patent at the Landore Steelworks. The hulls of these ships are to be mainly constructed of this steel. After speaking of the various trials to which these plates were subjected, the "leading journal" says—"What is technically known as B. B. iron—best Bolton steel—and other plates were subjected to experiment; but, like Eclipse, Landore steel was first and the rest nowhere." The Tin-plate Trade shows no material change. Another strike has occurred at the Vernon Tinworks, Briton Ferry, where the girls employed as picklers have gone out against a reduction. It is believed that by the introduction of machinery the firm will be enabled to dispense with the services of these employees—a lesson to those who are ready to strike on the least provocation.

It is refreshing in the depressed condition of the staple trades of North and South Wales to be able to state that there is yet one industry which appears to be flourishing. I allude to lead mining, which appears to be a remunerative pursuit at the present time. A new company has just been started, bearing the name of the Tan-y-Bwlch Lead and Copper Company (Limited). The first allotment of shares has been made, and the purchase it has been agreed shall date from August 1 last. It is stated that this arrangement will give the shareholders profits amounting to 35000l., and it will enable the company to declare an immediate dividend. The 90 fm. level has just been intersected, and the lode fully proved, and, when opened out, is expected to increase the profits to about 15000l. per mth. This will be equal to a dividend of 30 per cent. per annum upon the capital. Few instances can be adduced of such a successful start of a mining company. The London offices are at 52, Lombard-street.

The Coal Trade is likewise materially unaltered; prices remain at such a low ebb that colliery proprietors can be making but small, if indeed in some cases any, profits. The milder weather experienced has caused the demand for house qualities to fall off. Patent fuel is a slow sale. For the new colliery at Cwmpennar, Mountain Ash, sinking operations will commence next spring. Mr. Charles Pugh is the contractor. The Ebbw Iron and Steel Company adjourned meeting has been held at Manchester. The formal resolution agreed to on Nov. 17, and which gives power to deal in certain ways with the capital, was confirmed. Now a resolution was passed to reduce the nominal capital of the company from 2,333,000l. to 1,712,925l. This will, in turn, have to be confirmed at another extraordinary general meeting.

Notwithstanding the depression in trade which prevails, there appears to be a fair amount of business transacted at the docks at the various ports. At Cardiff the Chamber of Commerce, as I have previously intimated, have taken up the question of increased dock accommodation. Nothing daunted by the refusal of the Marquis of Bute to proceed with the construction of Kuth docks, they have requested an interview with one of his trustees, and a deputation on the subject will meet him to-morrow. Should this not prove of any avail there is some talk of a scheme for constructing docks at Barry Island. At Newport the Harbour Commissioners have taken up the question of providing a public dry dock; and with this view a depu-

tation has been appointed to negotiate with the Dry Dock Company, if possible, for a sale of their property. If successful, this scheme must prove of great benefit to the port.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Dec. 7.—There has been no new feature to report with respect to the general trade of either Derbyshire or Yorkshire. The make of pig is about the same as it was last week. The coal trade is not so active as it has been, still the colliers are working very well. In the absence, therefore, of anything special, a reference to the coal traffic by railway to the metropolis, which is of no ordinary importance, may not be out of place, especially as the colliers in the two counties are greatly interested in it. From information received from the most reliable sources, there can be no doubt but the larger quantity of coal sent to London, both by rail and sea, during October caused a falling off in the tonnage forwarded last month. This was in no way caused by any deficiency in the power to supply, but entirely to the decline in the demand, for the present state of the iron trade is such as to have the effect of sending very large quantities of coal to the London and other markets. This has led to prices of the best house coal in the metropolis being now as low as they were during the summer months, and exactly what they were in December, 1871, before the colliers' wages were advanced to anything like what they now are, or the Mines Regulation Act had come into operation. Merchants have done all they could to keep up the price; but in the face of the very large supplies sent from all parts of the kingdom they have been unable to do so, consequently the London consumers have this week been able to purchase coal 2s. a ton less than they could in October last.

Amongst the leading railways engaged in the traffic, the Great Northern, which is principally fed by the colliers in South Yorkshire, shows to the worst advantage, although the coal has a high reputation in the London markets. The colliery owners in the district named have hailed with satisfaction the prospect of an amalgamation taking place between the Great Northern and the Great Eastern, which would have given them direct access to the East End of London, and a second line from the coal field, which they have long been desirous of seeing accomplished, seeing that there are a great many new collieries being opened out, the produce of which will have to be taken by some railway or other. There has been no change in the carriage rate, although such has been frequently asked for by the coalowners between Sheffield, Barnsley, and Doncaster, so as to more evenly balance the charges with those in more favourably situated districts, as well as by those by screws from the Tyne. The position of the various lines will be seen from the following figures, showing the tonnage taken by the various lines of railway during the past three months:—

	September.	October.	November.
Midland	140,306	138,954	151,478
London and North-Western ..	118,181	124,791	133,824
Great Northern	75,725	98,890	80,780
Great Western	77,508	81,686	87,205
Great Eastern	49,509	55,799	73,615
London and South-Western ..	45,513	2,874	2,415
Other lines	1,191	3,034	1,096

Total

1875.	1876.	
Midland	1,504,804	1,432,781
London and North-Western ..	968,891	1,074,606
Great Northern	919,897	833,092
Great Western	813,183	715,846
Great Eastern	589,840	592,876
London and South-Western ..	31,094	35,697
Other lines	19,297	20,547

Total

Of silks'ones something like an average tonnage was sent over the Great Northern from the South Yorkshire district, Birley and Thornecliffe being credited with the largest share, whilst the Stanhope silks'ones, now worked by a limited company, is again in the list. About 17,000 tons were last month sent from nine collieries where the bed named is worked. From some of the other collieries not so much was sent. From the same field the Midland also took a fair tonnage from Monk Bretton and other places. The Derbyshire pits have done very well, sending upwards of two-fifths of all the coals that go to London by railway. Clay Cross take the lead, sending about 1000 tons a day, whilst a large tonnage is also sent from Langley Mill, Tibshelf, Eckington, Grassmoor, and Blackwell. The returns for the year, so far, may be considered satisfactory as compared with the corresponding period of last year, the increase being 269,839 tons. The Great Western shows to the best advantage, as will be seen from the figures below, showing the quantities carried during the two periods:—

	1875.	1876.
Midland	1,504,804	1,432,781
London and North-Western ..	968,891	1,074,606
Great Northern	919,897	833,092
Great Western	813,183	715,846
Great Eastern	589,840	592,876
London and South-Western ..	31,094	35,697
Other lines	19,297	20,547

A singular confirmation is given to the recklessness of colliers. Wednesday last was the anniversary of that terrible Swaithe Main Colliery explosion last year, in which 145 lives were lost, and the event was marked by special services at the parish church, and at the local Wesleyan chapel, both services being largely attended by the widows and orphans of those who perished. On the same day and in the same district, the Barnsley magistrates fined five colliers 2s. each and costs, for endangering the lives of miners, by neglecting to set up props. Comment is needless. While such carelessness prevails, the miner's work must be beset with perils.

REPORT FROM THE FOREST OF DEAN.

Dec. 7.—The improvement in the Coal Trade which we recently reported has not been maintained, a relapse to the previous dullness having all but occurred—i.e., we have almost got back again to stagnation. The comparatively mild, though exceedingly wet, weather not being all calculated to give and sustain an impetus to trade. There is now a considerably reduced output, and the colliers are far from being fully employed. The Messrs. Brain appear to be as lucky as any of the proprietors in securing trade, as the Trafalgar Colliery has been more regularly and fully employed than any pit in the Forest. Crump Meadow has been less fortunate than almost any colliery of importance in securing orders, and the men have had less work; but even at a greatly reduced output for many months past, there are what are considered heavy stocks: there being, it is said, upwards of 2000 tons now in stock at the colliery. Light Moor has also, it is said, cut off the night train on account of the unfavourable reaction. In fact, dullness and depression are felt and complained of in almost all directions. Indeed, trade of almost every kind is slack throughout the Forest. The tin-plate business is said to have somewhat improved of late in connection with one firm—Messrs. Thomas, of Lytham, but the tin-plate works have not restarted. The tin-plate is still at a low ebb, and stocks, although they are being reduced, it is only by a slow process. The Messrs. Crawshaw and Sons, however, are looking forward and preparing for future development by the erection of a large additional engine-house and a powerful pumping machinery for deep mining at Shakenmoor, which will be, it is averred, more powerful and of larger capacity than any machinery of the kind yet erected in the Forest. And having referred to this locality, it has reminded us of a dispute in regard to the boundaries of an old coal gale now being worked at the opposite hill of Mid Church, adjoining Stapleford. The dispute is between the Messrs. Riller and Gallop on the one side, and Messrs. Crook and another on the other. To decide it the gavel has been ordered to be driven in a certain direction, which has been under operation for some time; but in the meantime the supposed aggressor has pushed on his coal getting with much increased vigour, which has led to numerous comments. Of course, we cannot pretend to say who is right or who is wrong; we consider, however, that the gavel has decided upon the surest method to ascertain who is right and who is wrong by directing a heading to test it, as that will enable the gavel to decide when it is completed, as the method will determine whether a trespass has been committed or not, and whether any proceedings of coal have taken place or not; and the decision cannot be given until the data are complete for the purpose.

A new company has just been registered under the title of New Bilson, Crump Meadow, Foxe's Bridge, and Central Collieries Company; capital to be 20,000l., raised in 10l. shares. Several local and other gentlemen are named as subscribers, and it is arranged that the directors shall be remunerated to the extent of 500l. a year for their services. Messrs. Tove, Gould, Robert Parnell, and Charles Thos. Wilson, being named as the first. Of course we are not in a position to give any opinion as to the feasibility or otherwise of the scheme. Should the scheme, however, include good sales (Foxe's Bridge is a good one, but we do not know New Bilson, &c.), sound judgment, and energetic development, the company may look for a promising future. We fear the clay and brick company recently named is too much of a speculation. We wish all sound and judicious investments a prosperous future.

The Abergavenny, Ross, and Severn Bridge Junction Railway scheme, about which we expressed our doubts in our last report, was not presented for Parliamentary sanction on Nov. 30, or such is our information, and, therefore, for the present falls through. We should, however, like to see one part of it carried into effect—the line from Abergavenny into the Forest for a junction with the Severn Bridge line. The other short runs are not needed, since there is already a line from that district to Hereford, and any coming from Abergavenny to Ross could go over the Ross and Monmouth line from the junction at Lydbrook to that town. The short lines proposed to near Hereford and Ross being only through rural districts, mostly of farm villages, would never pay, but the line from Abergavenny to the

Forest would be a central run, and supply a shorter cut to London and some other places. The Forest Bill is to be introduced again next session, but strange to say it has had no advertisement publicity in the local papers. The natives would not relish the shutting up by enclosure of their native wilds. Prices of local productions remain in *statu quo*.

PONTGIBAUD SILVER-LEAD MINING AND SMELTING COMPANY.

The annual general meeting of this company was held in Paris, on Nov. 30, when the reports and accounts for the year ending June 30 last were received and approved. The profit on the working had amounted to 26,553l. 7s. 3d.; adding to this the sum of 4012l. 14s. 9d., received for interest and discount, the total gross profit was 30,566l. 2s. From this amount the various sums written off plant, &c., and royalties absorbed 5694l. 3s. 6d., leaving the net profit for the year 24,871l. 18s. 6d. The dividend for the year was fixed at 60 frs. per share, which is the largest ever paid by this company. The sum of 20 frs. was paid on account of this dividend in June last, and the balance of 40 frs. (or 1l. 11s. 1d.) per share is now in course of payment, as will be seen by an advertisement in this day's Journal. The report of Messrs. Taylor (the engineers in chief of the company) stated that the important work of sinking the great trial shaft at Roure had advanced uninterruptedly, and it was hoped it would be completed to the depth of 150 meters below the adit by the end of this year. The returns of ore from the company's mines had been maintained at the rate of nearly 275 tons per month without any diminution of the reserves. The work done both in smelting and desilvering had been in every respect satisfactory. After the ordinary general meeting, an extraordinary general meeting was held to consider such modifications in the "statuts" as will be suitable for the company when reconstituted under the new limited liability laws of France, for which the necessary steps are being taken.

[For remainder of Meetings see to-day's Supplement.]

MINING NOTABILIA

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

SOUTH WHEEL CROFTY.—It is feared that this mine has been a great disappointment to the adventurers. Ample evidence of this, indeed, has been seen by the severe fluctuations in the price of shares. At one time they were quoted as high as 120l. a share. Regular sales of tin, copper, and arsenic have taken place, but not sufficient to cover the cost. It is owing to the extraordinary general meeting, as will be seen by an advertisement in this day's Journal. The report of Messrs. Taylor (the engineers in chief of the company) stated that the important work of sinking the great trial shaft at Roure had advanced uninterruptedly, and it was hoped it would be completed to the depth of 150 meters below the adit by the end of this year. The returns of ore from the company's mines had been maintained at the rate of nearly 275 tons per month without any diminution of the reserves. The work done both in smelting and desilvering had been in every respect satisfactory. After the ordinary general meeting, an extraordinary general meeting was held to consider such modifications in the "statuts" as will be suitable for the company when reconstituted under the new limited liability laws of France, for which the necessary steps are being taken.

ST. NEOT, CORNWALL.—At the present time there is not a single mine working in this district. It is not long ago that Ambrose Lake, Wheel Northwood, Hobb's Hill, Tregeagle, and Tremadock and other mines were at work. The last-mentioned mine was worked by a private company, but the materials were sold a few weeks ago. Hobb's Hill, or New Hobb's Hill, it is said will be reconstituted shortly if the metal market continues to improve, the plant thereon being in good order. St. Neot, it might fairly be said, is a tin district, and considerable quantities of tin have been found therein. It is a beautiful granite district, but no discoveries of late have been sufficient to pay working cost, and with metal at the present low price affords no encouragement to speculators and investors to spend their money.

EAST CARADON.—It is pleasing to observe a report in the Journal last week from the agents, but it affords the adventurers no encouragement. Should the present company abandon it the South Caradon adventurers would undoubtedly annex it to their set, as they did in the case of West Caradon.

SOUTH DOLCOATH.—This valuable property, which is situated between Tinc off and West Basset Mines, has been purchased by a London gentleman, who intends commencing operations forthwith, and a company has been formed to work it with a capital of 6000l., in shares of 1l. each, which is considered ample to bring it into a dividend-paying state, the whole of the machinery and plant being on the mine fixed, and in working order, with shafts sunk, levels driven, and ore ground laid open. The proprietor has agreed to take the whole of his interest, and transfer the property free from all liabilities for 2500l. in fully paid shares, leaving 3500l. for developing the mine. The management of the mine is placed in the hands of Capt. Wm. Pascoe, of Camborne. Prospectuses and reports can be obtained by applying to Mr. Wm. Ward, Crosby House, London, where a plan of the mine and samples of the ore can be seen, and other information obtained.

THE OREGON HYDRAULIC GOLD.—The Oregon Sentinel says:—From a gentleman just from Galice Creek we learn the following concerning the mines in that section: The English company are now working the Reed diggings with a hydraulic, and have about completed their new ditch 2½ miles long, and will probably turn in the water on the Thos claims this week. Both of these claims pay well, and the company owning them will doubtless get large returns this winter.

THE MIDLAND RAILWAY.—At the annual dinner of the engineers connected with the Midland Railway at Derby, held recently, the chairman gave, as an instance of the magnitude of the company, the mileage of railway, canals, and tramways, being, in round numbers, about 1500, the coal consumed for locomotive power amounting annually to 600,000 tons, and for the conveyance of passengers and goods there were 31,000 vehicles. These in line would form a train the rear van of which would be in St. Pancras Station, and the front van six miles north of Derby, with 1½ miles of locomotives in front; and the number of men employed to work the line is upwards of 35,000.

WANTED, a RE-ENGAGEMENT as MANAGER by a Practical Mine Agent, of 12 years home and fifteen years Foreign and Colonial experience, in GOLD, SILVER, TIN, LEAD, COPPER, IRON, and PHOSPHATES of LIME. Inspections of Mining Properties undertaken, and Estimates carefully made. A position foreign preferred. Speaks Spanish. First class references. Address, in first instance, "Metal," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, a SITUATION as ASSISTANT in a MINING ENGINEER'S OFFICE, or ASSISTANT MANAGER of large MINES and WORKS—the Colonies preferred. The advertiser is an Associate of the Royal School of Mines, and has had experience in Assaying, Underground Surveying, and the execution of Mining Plans. Speaks French, German, and Spanish. First class testimonials can be given from former employers. Address, "M. E.," Morley's Library, Forest Hill, S.E.

TO MINING COMPANIES.

WANTED.—The Advertiser, a PRACTICAL MINER of eighteen years experience at home and abroad, will shortly be disengaged, and desires a SITUATION as MINE AGENT, which position he has filled for the past seven years. Is a thoroughly practical Miner, Dialect Mapper, Assayer, and Analyst, and understands Mining Correspondence and Accounts. Unexceptionable references. Address in first instance, "Captain," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, SHARES in ALMADA, COLORADO TERRIBLE, FLAGSTAFF, JAVALL (preference and ordinary), NANT-Y-GLO AND BLAINA (preference), OLD TREBUCKETT, PARYS, PESTARENA, PLYN-LIMMON, TECOMA, and WEST GOGINAG, MINES. State number and price for cash to "Mr. B.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, a SECOND-HAND BLAKE'S STONE BREAKER 15 inches by 9 inches, or 15 inches by 7 inches, delivered at Skipton Station, Yorkshire. Price, &c., to be sent to JAMES LEITH, Public Accountant, 85, Gracechurch-street, London, E.C.

PARTNER WANTED, in a PROFITABLE METALLURGICAL BUSINESS. Capital required, £5000. Address, "Metal," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

TENNESSEE, ALABAMA, AND GEORGIA.

CAPITALISTS DESIROUS OF INVESTING in MINERAL or AGRICULTURAL LANDS in these STATES may obtain any information desired, by addressing the undersigned, or consulting E. HAUG, Sheffield. WM. FORDHAM, Land Agent and Surveyor, Chattanooga, Texas, U.S.

TO COLLIERY, LAND, AND MINERAL PROPRIETORS.

A MINING ENGINEER AND SURVEYOR is prepared to UNDERTAKE QUARTERLY, or other, SURVEYS of COLLIERIES, IRON MINES, SLATE QUARRIES, LAND, &c., &c. Reports carefully made for intended purchasers. Estimates for all colliery work upon the latest principles furnished. Terms moderate, and first-class references. Address, "F. G. S.," MINING JOURNAL Office, 26, Fleet-street, E.C.

VALUABLE PROPERTIES FOR DISPOSAL.

A PRACTICAL MINER, of twenty-eight years' experience, has EXPLORED for the last six months, and can introduce to CAPITALISTS PROPERTIES in—
IRON ORE (in Limestone or Slate). MANGANESE.
COAL. ANTIMONY.
LEAD. SULF. LIME.
COPPER. UMBER. SLATE.
Principals only, or their solicitors, need apply.
No introduction fee required, remuneration only looked for in the event of any benefit accruing to the speculators.
Address to Mr. W. S. BURTON, Ireby, Malsgate, Carlisle.

MR. W. TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C.,
Deals in all descriptions of Stocks and Shares at close market prices.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867,

AND OF THE
DERWENT MINES COMPANY (LIMITED).
THE CREDITORS OF THE ABOVE-NAMED COMPANY are required to SEND their NAMES and ADDRESSES and the PARTICULARS of their DEBTS or CLAIMS to ROBERT PALMER HARDING, the Liquidator of the said company, at 8, Old Jewry, in the City of London, on or before the 31st day of December instant, after which day the said Liquidator will proceed to distribute the ASSETS of the said company among the parties entitled thereto, having regard only to the claims and demands of which the said Liquidator shall then have had notice, and to close the said liquidation in manner provided by the said first-mentioned Act.
R. P. HARDING, Liquidator.
Dated this 5th day of December, 1876.

THE DIRECTORS OF THE NATIONAL PROVINCIAL BANK OF ENGLAND hereby give notice that a HALF-YEARLY DIVIDEND at the rate of EIGHT PER CENT. PER ANNUM, and a HALF-YEARLY BONUS OF SIX PER CENT., will be PAYABLE on the Company's Stock, on and after the 5th day of January next, when the Dividend and Bonus Warrants may be obtained at the company's office, No. 112, Bishopsgate-street (corner of Thread-needle-street), or at the different Branches of the said Bank.
The Transfer books will be closed on and after Saturday, the 9th instant, until the Dividend and Bonus become payable.
By order of the Court of Directors,
E. ATKINSON, } Joint General
W. HOLT, } Managers.
R. FERGUSON, }

THE CAPE COPPER MINING COMPANY (LIMITED).

Notice is hereby given, that at a MEETING of the Directors of this company, held to-day, it was resolved:—
That a DIVIDEND of TWENTY SHILLINGS PER SHARE, free of income tax, be and is hereby declared, PAYABLE on the 23rd day of December instant, to the shareholders on the books of the company on the 16th instant, and that the Transfer-books will be closed during the said 16th instant.
By order of the Board, J. C. LEAVER, Secretary.
8, Queen-street-place, London, December 6th, 1876.

PONTGIBAUD SILVER-LEAD MINING AND SMELTING COMPANY.

Notice is hereby given, that at the ANNUAL GENERAL MEETING, held in Paris on the 30th ultimo, the DIVIDEND for the year 1875-1876 was fixed at SIXTY FRANCS PER SHARE. The sum of 20 francs per share was paid on account of the same on the 8th June last, and the balance of 40 francs per share will be PAID in exchange for the Fifteenth Dividend Coupon on and after the 5th day of December instant, at the offices of the company, No. 15, Rue de Clugaud, Paris, or at the London Agency, No. 6, Queen-street-place.
The payments made in England for such balance of Dividend will, after allowing for French tax and exchange, be at the rate of £1 11s. 1d. per share, subject to the deduction of income tax.
JOHN TAYLOR AND SONS,
London Agency, No. 6, Queen-street-place, E.C., Dec. 2, 1876.

RIO TINTO COMPANY (LIMITED).

SEVEN PER CENT. MORTGAGE BONDS.

SECOND HALF-YEARLY DRAWING, PAYABLE 1ST JANUARY, 1877.

Notice is hereby given, that the following NUMBERS OF BONDS FOR PAYMENT AT PAR on the 1st January next, were DRAWN on the 1st instant, at the offices of the Société Générale de Crédit Industriel et Commercial, Paris—viz.,
Nos. 1,891 to 2,000 = 100 Bonds.
" 2,001 to 2,300 = 100 "
" 4,501 to 4,700 = 100 "
" 24,501 to 24,700 = 100 "
" 27,101 to 27,200 = 100 "
" 47,801 to 47,900 = 100 "
" 2,501 to 2,870 = 70 "
Total

The above Bonds will be paid on and after the 1st January next, either at the Offices of the Société Générale de Crédit Industriel et Commercial, 72, Rue de la Victoire, Paris; or at the Offices of the Rio Tinto Company (Limited), in London, at the holders' option. Bonds to be paid in London must be left three days previously for examination.
N.B.—Interest on the above-named drawn Bonds will cease on the 1st January next.
By order,
R. J. FENNESSY, Secretary.
Offices of the Company, 2, Cophthall Buildings, London, E.C., 2nd December, 1876.

TANKERVILLE MINING COMPANY (LIMITED).

Notice is hereby given, that the Directors of the Tankerville Mining Company (Limited) have THIS DAY DECLARED a DIVIDEND OF FIVE SHILLINGS PER SHARE (free of income tax), PAYABLE on and after Dec. 30.
Notice is also hereby given, that the Transfer Books of the company will be closed from the 18th to the 30th of December, both days inclusive.
By order of the Board,
J. H. MURCHISON, London Manager and Secretary.
8, Austinfriars, London, November 29, 1876.

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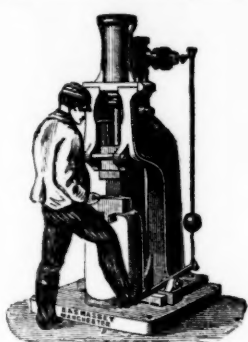
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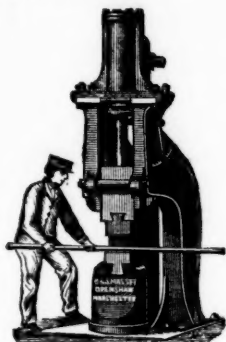
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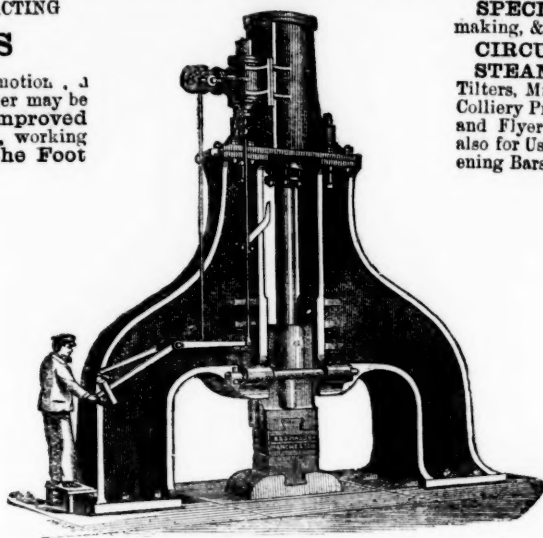
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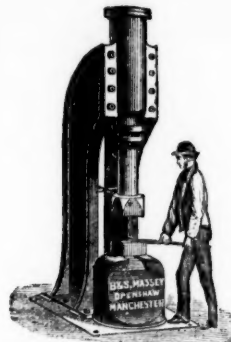
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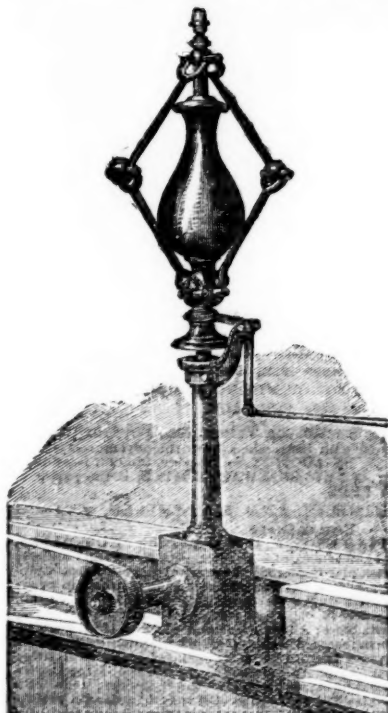
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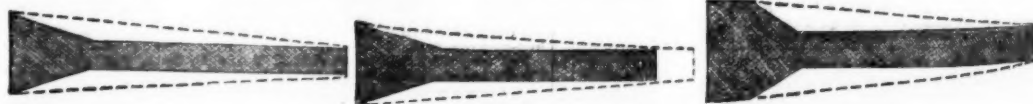
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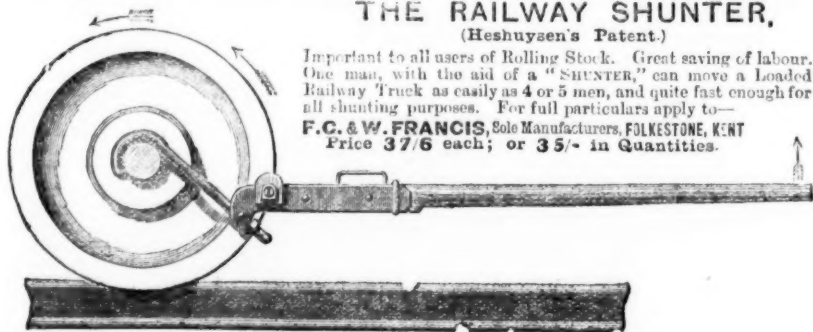
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1500	Alderley Edge, c. Cheshire	10 0 0	—	12 11 8.	0 8 0.	Jan. 1876			
15000	Balmynny, c. Wexford (4000 to is.)	1 0 0	—	0 2 0.	0 2 0.	June 1875			
3000	Bampfylde, c. t. m., Devon	1 0 0	—	15 1/2.	1 1/2.	1876			
300	Botalack, c. t. St. Aust. (1000 shares)	110 0 0	30	619 15 0.	0 8 0.	Aug. 1875			
4000	Brookwood, c. t. Buckfastleigh	1 10 0	—	3 16 0.	0 2 0.	Nov. 1875			
3348	Cargill, c. t. Newlyn	6 10 0	—	4 16 3.	0 12 6.	Oct. 1875			
6400	Cashwell, c. t. Cumberland	2 10 0	—	1 7 6.	0 2 0.	Aug. 1875			
1000	Carn Brea, c. t. Illogan	35 0 0	50	308 0 0.	1 0 0.	Feb. 1874			
1000	Cath. & Jane, c. t. Penrynendendrab	5 0 0	—	0 7 6.	0 2 0.	June 1875			
2450	Cook's Kitchen, c. t. Illogan	21 4 0	—	11 17 0.	0 7 6.	June 1875			
10240	Devon Gt. Consols, c. t. Tavistock	1 0 0	—	116 10 0.	0 12 0.	May 1875			
4296	Dolcoath, c. t. Camborne	10 14 0	—	10 13 9.	0 7 6.	Oct. 1875			
15000	Drake Walls, c. t. Calstock	8 0 0	—	0 2 0.	0 2 0.	Feb. 1874			
10000	Duchess of Westminster, c. t. Holywell	1 0 0	—	0 3 0.	0 2 0.	Feb. 1874			
10000	East Haleswiden, c. t. Saneered	1 0 0	—	0 2 11 0.	0 6 0.	Feb. 1874			
6144	East Caradon, c. t. Cleer	2 14 6	—	14 19 0.	0 2 0.	Oct. 1875			
300	East Darren, c. t. Carnarvon	32 0 0	—	235 10 0.	1 0 0.	Aug. 1875			
6400	East Pool, c. t. Illogan	0 9 9	—	14 16 3.	0 2 0.	Oct. 1875			
1906	East Wheel Lovell, c. t. Wendron	6 12 0	—	20 7 8.	0 7 6.	Oct. 1875			
2800	Foxdale, c. t. Isle of Man	25 0 0	—	82 5 0.	0 10 0.	Feb. 1876			
40000	Glazow Carr, c. t. 150,000 sh. p.	15 0 0	—	0 11 10 0.	0 2 0.	Jan. 1876			
15000	Great Dyllide, c. t. Montgomeryshire	4 0 0	—	0 2 6 0.	0 2 6.	Apr. 1876			
15000	Great Laxey, c. t. Isle of Man	1 0 0	—	20 13 0.	0 10 0.	Oct. 1876			
615	Great Retallick, c. t. Penzance	5 18 6	—	0 1 6 0.	0 1 6.	May 1874			
25000	Great West Van, c. t. Carnarvon	2 0 0	—	0 2 0 0.	0 2 0.	Aug. 1874			
5908	Great Wheel Vor, c. t. Helston	41 12 6	—	15 19 0.	0 2 6.	June 1874			
4000	Green Hurth, c. t. Durham	0 10 0	—	1 12 0.	0 10 0.	Oct. 1875			
20000	Grogwinion, c. t. Cardigan	2 0 0	—	0 13 0.	0 6 0.	Sept. 1876			
1830	Gunnislake (Clitters), c. t. c.	5 8 0	—	62 5 0.	0 15 0.	Oct. 1876			
18000	Herodford, c. t. near Llanidloes	8 10 0	—	4 4 0.	0 10 0.	Nov. 1875			
18000	Rington Down, c. t. Calstock	1 0 0	—	0 3 11 0.	0 8 0.	Mar. 1875			
25000	Killicote, c. t. Tipperary	1 0 0	—	0 4 0 0.	0 1 0.	Nov. 1875			
400	Lisburne, c. t. Cardigan	15 16 0	—	517 10 0.	1 0 0.	Sept. 1876			
14000	Llanidloes, c. t. Montgomery	8 0 0	—	0 4 6 0.	0 1 0.	Nov. 1875			
0120	Lovell, c. t. Wendron	0 10 0	—	0 17 0.	0 1 0.	Jan. 1876			
9000	Marke Valley, c. t. Linkinhorne	5 0 0	—	7 15 0.	0 2 0.	Jan. 1876			
11000	Melindur Valley, c. t. Cardigan	3 0 0	—	0 7 2 0.	0 3 0.	Jan. 1876			
9000	Minera Mining Co., c. t. Wrexham	3 0 0	—	23 11 0.	0 10 0.	Oct. 1876			
9000	Mining Co. of Ireland, c. t. c.	7 0 0	—	23 11 0.	0 10 0.	Oct. 1876			
612	North Bury, c. t. Chacewater	2 10 0	—	0 10 0.	0 10 0.	Dec. 1875			
10 189	North Bury, c. t. Wales	2 10 0	—	1 5 0.	0 2 0.	Nov. 1875			
2000	North Levant, c. t. St. Just	12 2 0	—	4 13 0.	0 12 0.	Sept. 1874			
27555	Old Treburget, c. t. ordinary shares	1 0 0	—	0 9 0.	0 9 0.	Feb. 1874			
9258	Old Treburget, c. t. 10 per cent. pref.	0 10 0	—	0 1 4 0.	0 6 0.	July 1874			
6000	Penalith, c. t. St. Agnes	3 0 0	—	3 13 6.	0 2 0.	July 1875			
45793	Penrith, c. t. c. Wrenn	2 0 0	—	2 2 8.	0 8 0.	Nov. 1875			
10000	Phenix & W. Phenix, c. t. Link.	3 4 9	—	2 14 0.	0 8 0.	Nov. 1875			
12 300	Prince Patrick, c. t. Holywell	1 0 0	—	104 12 0.	0 10 0.	Jan. 1876			
1120	Roseland, c. t. Lelant	13 0 0	—	6 13 0.	0 8 0.	Oct. 1876			
1200	Roman Gt. Consols, c. t. Salop	1 10 0	—	731 0 0.	0 2 0.	Oct. 1876			
612	South Caradon, c. t. Cleer	7 10 0	—	2 2 0.	0 3 0.	Oct. 1876			
6128	South Caradon, c. t. Cleer	7 10 0	—	0 7 0.	0 10 0.	Oct. 1876			
10000	South Caradon, c. t. Cleer	7 10 0	—	4 17 0.	0 8 0.	Nov. 1876			
12000	South Caradon, c. t. Cleer	7 10 0	—	49 18 0.	0 5 0.	Nov. 1876			
10000	South Caradon, c. t. Cleer	7 10 0	—	1 1 0.	0 10 0.	Sept. 1876			
10000	South Caradon, c. t. Cleer	7 10 0	—	54 10 0.	0 10 0.	Aug. 1876			
1753	South Caradon, c. t. Cleer	13 0 0	—	15 15 0.	0 1 0.	Oct. 1876			
612	West Laxey, c. t. Redruth	58 10 0	—	15 15 0.	0 1 0.	Oct. 1876			
2048	West Laxey, c. t. Redruth	21 13 0	—	3 12 0.	0 5 0.	Oct. 1876			
12000	West Wye Valley, c. t. Montgomery	2 10 0	—	0 6 0.	0 5 0.	Nov. 1876			
612	Wheal Basset, c. t. Illogan	14 2 6	—	635 10 0.	1 10 0.	Aug. 1876			
1024	Wheal Eliza Consols, c. t. Austell	20 0 0	—	6 0 0.	0 3 0.	Aug. 1876			
2048	Wheal Eliza Consols, c. t. Austell	20 0 0	—	8 5 0.	0 5 0.	July 1876			
4256	Wheal Eliza Consols, c. t. Austell	20 0 0	—	11 19 0.	0 2 0.	Dec. 1874			
60	Wheal Owles, c. t. St. Just	88 8 0	—	522 10 0.	4 0 0.	Aug. 1876			
6000	Wheal Owles, c. t. St. Just	2 0 0	—	2 10 0.	0 2 0.	Dec. 1876			
25000	Wicklow, c. t. St. Just	2 10 0	—	52 0 0.	0 2 0.	Dec. 1876			
10000	Wye Valley, c. t. Montgomery	8 0 0	—	0 10 0.	0 4 0.	Oct. 1876			

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk. Cls. pr.	Total divs.	Per sh.	Last pd.
35000	Almaden, c. t. Spain	2 0 0	—	1 13 3.	0 1 0.	Oct. 1876
30000	Almaden, c. t. Spain	2 0 0	—	0 3 0.	0 1 0.	May 1876
20000	Australian, c. t. South Australia	7 5 0	—	0 13 0.	0 2 0.	Aug. 1876
10000	Battle Mountain, c. t. (6240 part pd.)	5 0 0	—	0 10 0.	0 10 0.	Nov. 1876
15000	Birdseye Creek, c. t. California	4 0 0	—	0 14 0.	0 2 0.	June 1874
12320	Burra Burra, c. t. So. Australia	5 0 0	—	70 0 0.	0 10 0.	Oct. 1872
40000	Cape Copper Mining, c. t. So. Africa	7 0 0	—	28 15 0.	1 0 0.	Dec. 1876
40000	Cedar Creek, c. t. California	6 0 0	—	0 5 0.	0 2 0.	June 1873
30000	Central American, c. t. c.	0 14 6	—	0 6 0.	0 10 0.	July 1876
15000	Chicago, c. t. Utah	10 0 0	—	2 14 0.	0 4 0.	Nov. 1876
21000	Colorado Territorial, c. t. Colorado	10 0 0	—	0 13 0.	0 8 0.	Nov. 1876
10000	Copio, c. t. Chile	15 15 0	—	7 5 0.	0 2 0.	Mar. 1876
00000	Don Pedro North of the Key	0 18 0	—	2 5 0.	0 2 0.	Mar. 1876
23500	Eberhardt and Aurora, c. t. Nevada	10 0 0	—	1 5 0.	0 5 0.	July 1876
00000	Emma, c. t. Utah	20 0 0	—	3 12 0.	0 6 0.	Dec. 1876
70000	English and Australian, c. t. S. Aust.	2 10 0	—	2 13 0.	0 2 0.	Mar. 1874
15000	Ferguson, c. t. California	2 0 0	—	0 3 0.	0 3 0.	April 1876
80000	Flagstaff, c. t. Utah	10 0 0	—	4 2 0.	0 8 0.	July 1876
25000	Fortuna, c. t. Spain	2 0 0	—	0 2 0.	0 1 0.	June 1876
50000	Frontino & Bolivia, c. t. New Gran.	2 0 0	—	0 2 0.	0 4 0.	Oct. 1876
30000	Gold Run, c. t. c.	1 3 0	—	0 14 0.	0 2 0.	July 1876
80000	Kapunda Mining Co. Australia	1 3 0	—	16 8 0.	0 2 0.	Oct. 1876
20000	Last Chance, c. t. Utah	5 0 0	—	0 10 0.	0 10 0.	July 1876
15000	Linares, c. t. Spain	3 0 0	—	0 11 0.	0 2 0.	Oct. 1876
00000	London and California, c. t. c.	2 0 0	—	0 10 0.	0 10 0.	July 1876
7857	Lusitania, Portugal (25 shares)	3 10 0	—	1 11 6.	0 1 0.	Mar. 1873
80000	Mammoth Copper Co. of Utah, c. t.	10 0 0	—	0 5 0.	0 5 0.	Dec. 1876
8000	Mountain Chief, c. t. Utah	10 0 0	—	0 4 0.	0 4 0.	Jan. 1876
15000	Prussian Mining Ironworks, c. t. c.	30 0 0	—	6 0 0.	0 3 0.	July 1876
1000	Pontbiquet, c. t. France	30 0 0	—	22 1 11 11	1 11 11	Nov. 1876
10000	Port Phillip, c. t. Cines	20 0 0	—	0 1 0.	0 1 0.	Nov. 1876
54000	Richmond Consols, c. t. Nevada	5 0 0	—	3 9 0.	0 7 0.	Oct. 1876
40000	Santa Barbara, c. t. Brazil	0 10 0	—	0 2 6 0.	13 0 0.	Oct. 1876
120000	Scottish Australian Mining Co. t.	1 0 0	—	17 1/2 per cent.	Nov. 1876	
80000	Scottish Austral. Mining Co. New.	0 5 0	—	17 1/2 per cent.	Nov. 1876	
112500	Sierra Ranges, c. t. California	2 0 0	—	1 16 0.	0 2 0.	Oct. 1876
10000	South American, c. t. Nevada	5 0 0	—	0 14 2 0.	0 2 0.	Nov. 1876
250000	St. John del Rey, c. t. stock and multiples dealt in	5 0 0	—	3 8 0.	0 2 0.	June 1876
15000	Sweetland Creek, c. t. California	5 0 0	—	2 10 0.	0 8 0.	May 1874
00000	Tollima, c. t. So. America	5 0 0	—	2 10 0.	0 8 0.	July 1876
15000	Western Andes, c. t. New Granada	5 0 0	—	0 16 0.	0 8 0.	Sept. 1876
21000	W. Prussian (5500 pref. sh. 50 paid)	10 0 0	—	11 11 1/2	—	—

NON-DIVIDEND FOREIGN MINES.

	Shares.	Mines.	Paid.	Last Fr.	Clos. Fr.	Last Call.
30000 Anglo-Australian, Victoria*	2	10	0	—	—	Sept. 1872
5000 Angulla Phosphate, West Indies (4000 issued)	10	0	0	—	—	Fully pd.
12000 Argentine, c. Argentine Republic	5	0	0	—	—	Fully pd.
10000 Australian Central, c ^o (also 6000 deferred shares)	1	0	0	4½	6 ½	Fully pd.
8000 Bellavista, c. Peru* (40 shares)	10	0	0	—	—	Fully pd.
30000 Blue Tent, c ^o , California	8	0	0	3½	3 ¾	Fully pd.
50000 Brazzaville, c. Brazil†	0	15	0	—	—	Oct. 1870
12000 Camp Floyd, c. Utah	10	0	0	—	—	Fully pd.
15000 Cesena Sulphur Co., Romagna, Italy*	10	0	0	—	—	Fully pd.
60152 Chontales, c. c. Nicaragua	2	0	0	—	—	Fully pd.
6000 Clifton, c. Colorado*	5	0	0	¼	¾ ¾	Fully pd.
15000 Condes of Chili, c ^o	5	0	0	—	—	Feb. 1872
35000 Excelsior Hydraulic Gold Washing Co., California*	6	0	0	5½	5 ½	Fully pd.
10000 Exchequer, c. c. California*	1	0	0	—	—	Dec. 1871
6000 Holcombe Valley, c. c. California	1	0	0	2	1½ 2	Fully pd.
5000 Hornachos, c. c. (40 shares) Spain	10	0	0	—	—	July 1873
10000 Imperial Sulphur Co., Collieries, Brazil*	8	0	0	12½	11½ 13½	Jan. 1874
10000 I. X. L. c. c. California*	1	0	0	—	—	Fully pd.
50000 Javali, c. Nicaragua*	1	0	0	1	¾ 1	Fully pd.
2500 La Manche, c. Newfoundland	2	0	0	¾	¾ ¾	Fully pd.
12000 Lanestosa, c. c. c. Viscaya, Spain (42 shares)	10	0	0	11½	10½ 11½	Fully pd.
75000 Malabar, c. Colombia (7185 issued)	1	10	0	—	—	Mar. 1870
40000 Malpasso, c. Colombia (7400 pref. shares, fully paid)	1	0	0	¾	¾ ¾	Fully pd.
12000 Meuzenberg, c. Honnet, Germany*	8	5	0	¾	¾ ¾	Fully pd.
8000 Monz Loreto, c. c. Italy*	8	0	0	—	—	Fully pd.
4528 New Bensberg, c. c. Germany	5	0	0	—	—	Fully pd.
60000 New Quebrada, c. Venezuela*	5	0	0	par	—	Nov. 1870
50000 New Rosario, c. Mexico*	8	0	0	4	3½ 4	Fully pd.
20000 New Zealand Kapanga, c. Comorand's Estate	1	0	0	—	—	Fully pd.
2000 Oregon, c. Oregon, U.S. (preference shares)	8	0	0	8	4½ 5	Fully pd.
50000 Paulicille, c. Chili† (28000 debentures)	4	0	0	4½	4 4½	Sept. 1875
50000 Pestarena United, c. Italy*	3	0	0	2½	2 ½	Fully pd.
50000 Rica, c. Colombia* (4000 issued)	1	0	0	¾	¾ ¾	Fully pd.
25,121 Rossa Grande, c. Buñ† (41 shares)	1	0	0	59	57 59	Fully pd.
20000 Russia Copper, Orebright and Ufa†	0	19	0	½	½	July 1872
25000 San Pedro, c. Chili†	10	0	0	2½	2 ½	Fully pd.
10000 Silver Plume, c. Colorado*	2	0	0	1	¾ 1	Fully pd.
37500 Snowdrift, c. Colorado*	2	0	0	—	—	Fully pd.
20000 Tecoma, c. Utah	10	0	0	¾	¾ ¾	Fully pd.
20000 Thornhill Reef, c. Australia*	1	0	0	—	—	Fully pd.
43174 United Mexican, c. Mexico††	28	15	3	2½	2½ 3½	May 1875
10000 Utah, c. c. c. California	5	0	0	—	—	Fully pd.
25000 Victoria (London)*, c. c						